Model Railway *Exhibition Number*

RAILWAY MODELLER

For The Average Enthusiast

Wagon Construction by Peter Denny

Craig Boatbuilding Yard by P. D. Hancock

VOL 8 1957 2/- APRIL

CCW

A few of many CCW details that matter

DESTINATION BOARDS
"OO" or "O"

L.M.S.: Black/White
Maroon/White
G.W.R.: Black and Cream
Set of 6 sheets **1/2½**.
Post 3d.

Dummy VAC SETS
with cylinder and rodding.
"OO" **1/-** each. Post 4d.
"O" set of parts **2/-**.
Post 4d.

BRIGHTON PULLMAN
BUFFERS for S.R. electrics,
Set of 4, **1/6**. Post 3d.

The most interesting of all are the famous **VANS**

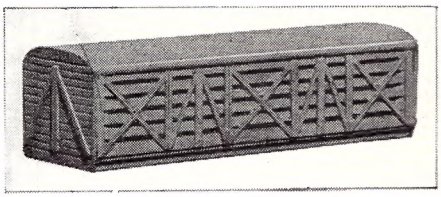
G.W.R. SIPHONS

A few attractive vans add distinction and colour to every layout. Most appropriate, as they go all over the country, are these well-known Great Western "Siphons," which are quite easily built from Skinley drawings and the CCW kits of carefully prepared parts.

The SIPHON "G"	"OO" Body Kit
G143HS. G.W. 50ft. Inside Frame ...	**9/-**
G144HS. G.W. 50ft. Outside Frame ...	**9/-**
For each of the above, CCW External Fittings, Kit Ref.: VB, including Bogies	**11/6**
Skinley Drawings **1/11½** each (1/9 with goods).	

The 6-wheel SIPHONS	"OO" Body Kit
G145H. G.W. High Siphon, 6-wh. ...	**6/-**
G146H. G.W. Low Siphon, 6-wh. ...	**6/-**
For each of the above, CCW External Fittings, Kit Ref.: VE, including wheels, etc.	**8/-**
Skinley Drawings **1/5½** each (1/3 with goods).	

For "O" GAUGE please ask for "Body" Kits: G143 **21/6**; G145, G146 **14/6**



For full information about the wide range of CCW kits for Coach and Van Construction and the moderately priced CCW Accessories, Bogies, Paints, etc., please send **1/-** (post free) for 40-page illustrated CATALOGUE; also "Scaloh" "O" gauge Supplement **6d.** (post free); Summary Price List **2½d.** *Catalogues free to overseas.*

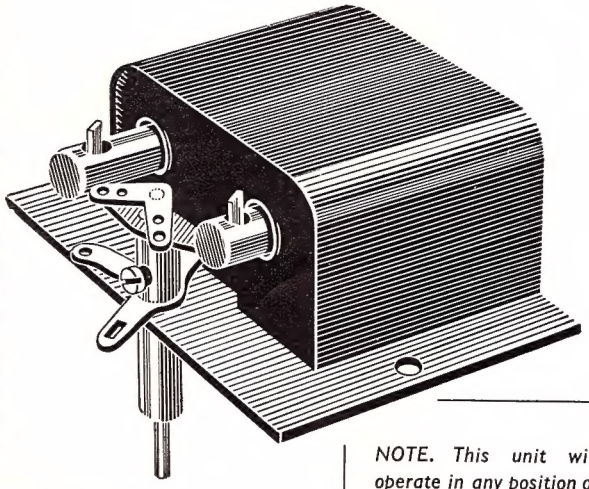
CCW PRODUCTIONS

(DEPT. R) BRIDLE PATH · WATFORD · HERTS · ENGLAND

*** VISIT STAND No. 5 at the MODEL RAILWAY EXHIBITION ***

Add remote control to your enjoyment

Fix this reliable double solenoid point motor



THIS universal unit is suitable for point operation in gauge "OO" or gauge "O," and may be mounted above or below the track base. Crank throws may be selected to suit almost any point blade movement up to ¼in. throw. Working voltage 12-16 volts D.C. or 20 volts A.C. suitable for the remote control of signals and may be adapted for the animation of lineside accessories such as indicators, crossing gates, etc., and for any other purposes where a straight movement up to ¼in. is required. Reliable and of robust construction, it is mounted in a non-rusting metal case with fixing holes and connecting tags for wiring to operating switch. Size of base 2¼in. x 1¾in., height 1in. Price each with instructions, **18/4,** postage 9d.

NOTE. This unit will operate in any position or at any angle, and when mounted below model railway baseboard the crankshaft can be set through a baseboard thickness up to ¾ in.

Write now, quoting ref. MR/108 for 100-page fully illustrated catalogue. Price 2/-. The most comprehensive ever issued by BASSETT-LOWKE. Its exciting suggestions include details of gauge "O" and "OO" railways

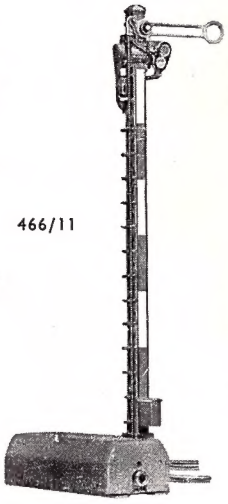
BASSETT-LOWKE LTD.

Head Office and Works: **NORTHAMPTON**

LONDON SHOWROOMS: 112 High Holborn, W.C.2 MANCHESTER SHOWROOMS: 28 Corporation Street, 4

HUB MODEL RAILWAYS OF THE WORLD

REGD. TRADE MARK



TRAIN CONTROL SIGNAL Price **25/11** → 466/11

WITH ONE SEMAPHORE ARM, LIGHT CHANGES FROM RED TO GREEN.

OTHER MODELS

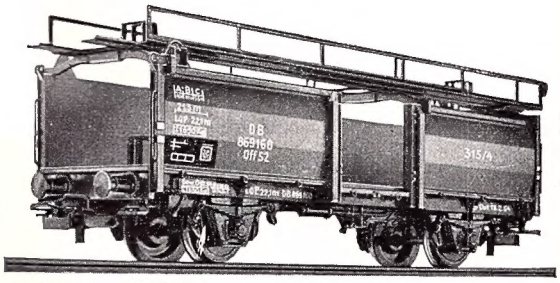
446/12 HOME SIGNAL ... **28/11**
446/21 TRACK BLOCKING SIGNAL **28/11**
446/2 DISTANT SIGNAL ... **22/11**

STOP!

COME AND SEE

MARKLIN

FASCINATES OLD AND YOUNG ALIKE

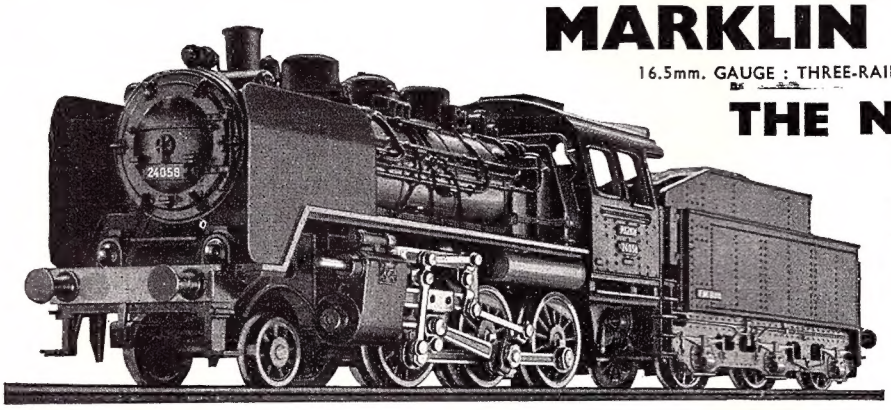


MARKLIN "HO" WAGONS

315/4 TRANSPORTER TRUCK ... ... **18/11** →
306/1 CLOSED GOODS VAN **10/9**
307/2 BANANA VAN **10/11**
304E "ESSO" TANK WAGON **12/11**

MARKLIN "HO" LOCOMOTIVE

16.5mm. GAUGE : THREE-RAIL AND STUD : 20 VOLTS A.C.



THE NEW F.M. 800

PASSENGER TENDER ENGINE 2-6-0, HEUSINGER VALVE GEAR, MODEL 24, GERMAN FEDERAL RAILWAYS, WITH LIGHTS

83/9

—if it's model railways

HUB *HAVE IT*

IN STOCK NOW TRI-ANG "TT" **GAUGE**

SEND TODAY FOR COMPLETE CATALOGUE—ONLY 3d.

TAYLOR & McKENNA LTD.

98 CRAVEN PARK ROAD, HARLESDEN, N.W.10

EARLY CLOSING THURSDAY TELEPHONE: ELGAR 3573

WE CORDIALLY INVITE YOU TO VISIT OUR STAND

AT THE MODEL RAILWAY CLUB EXHIBITION APRIL 23—27

A full range of equipment in gauges "O" and "OO" will be displayed and we shall specially feature all the latest developments in the new "TT" gauge.

A new up-to-date catalogue will be ready for purchase on the stand, price 6d., or direct from:

WALKERS & HOLTZAPFFEL LTD.

23 Paddington Street, Baker Street. London, W.1 **Tel. Welbeck 8835**

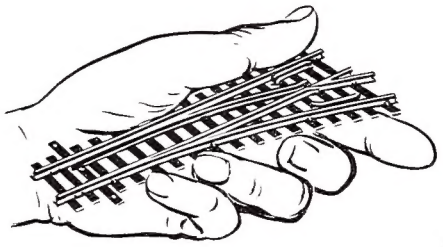
GEM FLEXIBLE TRACK TT GAUGE

GEM "TT" NICKEL SILVER UNIVERSAL TRACK AND POINTWORK IS REALISTIC AND RELIABLE

IT IS SUITABLE FOR ALL PROPRIETARY AND SCALE LOCOMOTIVES AND ROLLING STOCK

SOLVE YOUR SPACE PROBLEM! TRI-ANG "TT" ON GEM TRACK!

Flat bottom rail held by metal chairs to correctly spaced scale sleepers. Track is in 18-inch straight lengths, curvable to any radius. Universal closed frog points ensure the smooth passage of all makes of wheel.



PRICES

Straight Track, 18-inch lengths	3/9
Universal Turnouts, 15-inch rad., L.H. or R.H.	12/6
Fishplates, 3 doz. 2/5. Track Spikes, per pkt.	7½d.
S & B "TT" Point Lever. Positive action ...	2/5

There will be a Working "TT" Gauge Layout on our STAND No. 31 at The Model Railway Club Exhibition

Our 1957 catalogue M47 gives full details of our "OO-TT" products. Price 1/6 post free

GEORGE E. MELLOR

31a, Rhos Road, Rhos-on-Sea. N. Wales

PHONE:-COLWYN BAY 48462 TRADE ENQUIRIES INVITED

Buy your Gem "TT" Track from your local Model Shop or direct from us by post

£50 in prizes

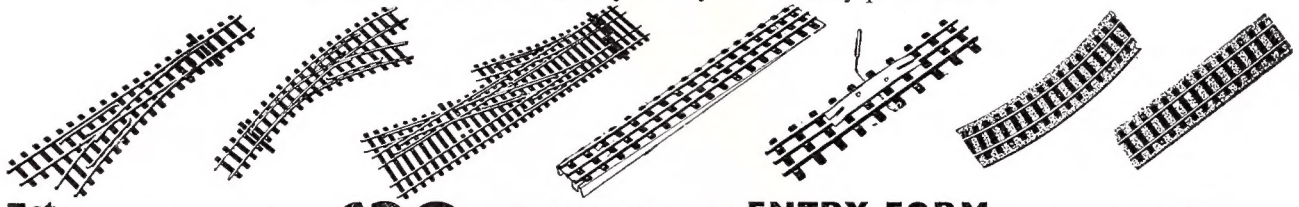
offered by G. & R. Wrenn

To all Wrenn track users, here is an opportunity to win valuable prizes in a competition which tests your appreciation of Model Railway Layout Construction.

Simply place the six features, indicated on entry form below, in what you consider to be their order of importance. Then add a slogan of not more than 10 words which should, if possible, include the name Wrenn stating why you prefer Wrenn track.

* A Photo of your layout may win you an additional prize.

Enter now and who knows you may be the lucky prizewinner.



1st PRIZE £30

2nd PRIZE £10

*** In addition a prize of track to the value of—£10 will be awarded for a photograph of best layout using Wrenn products**

Send entry form and/or photo together with the name Wrenn taken from any card, box or wrapper, to: Dept. C, G. & R. Wrenn, Honywood Road, Basildon, Essex.

WINNERS' NAMES WILL APPEAR IN RAILWAY MODELLER and MODEL RAILWAY NEWS

* * WRENN * * *

G. & R. WRENN
HONYWOOD ROAD, BASILDON, ESSEX

ENTRY FORM

	A	Ability to run all types of locos and rolling stock.
	B	The combined Strength and Realism of the products.
	C	Flexibility of track with the ability to retain curves.
	D	Ease of constructing layouts.
	E	Extensive range to choose from.
	F	Low cost of layout development.

SLOGAN.....

.....

Place features A — F in order of importance by marking 1 — 6 in left-hand corner.

In the event of a tie, entry containing best slogan will be considered the winner.

CLOSING DATE 14th MAY 1957.

Judges Decision Final.

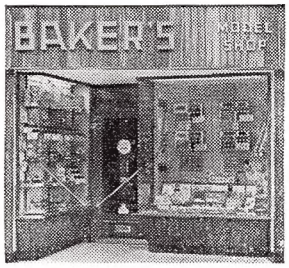
PLEASE USE BLOCK LETTERS.

Name.....

Address.....

* *

PLEASE TELL YOUR FRIENDS ABOUT THE **RAILWAY MODELLER**



BAKER'S MODEL SHOP

J. R. Baker (Gillingham) Ltd.

DEPT. R.M., 14 CANTERBURY STREET, GILLINGHAM, KENT

HORNBY-DUBLO new T.P.O. mail-van set, comprising mail van, lineside apparatus, two mail bags and push-button switch. Price **38/6** post 1/-. TRI-ANG new operating hopper car set, **29/6** post 1/6. Electrically operated double-track level crossing **27/-.** Switch **6/-** post 1/-. (Note : This level crossing operates from 15v. A.C.) Restaurant car with interior fittings **10/6** post 6d. PECO new Wonderful Wagon kits. Low-sided five-plank mineral wagon (six different names available), Sifta Salt wagon, **7/6** each post 6d. When ordering please state whether A/HD or R/T wheels.

GAUGE "OO" UNIVERSAL POINT LEVER with $\frac{3}{16}$" plus $\frac{1}{32}$" throw. Ideal for use with Wrenn and Gem universal points. Price 2/- post 3d.

ASH "OO" road transport kits from **6/-** to **16/9.** Platform lorries, Luton vans, petrol tankers, low-loaders, etc. Over 30 different types available. Send 3d. for illustrated list. TRI-ANG "TT" gauge. Supplies now available. Illustrated price list 2d. post free. GEM "TT" flexible track now in stock, **3/9** per 18-inch length. Universal turnouts, **12/6** each.

H. A. BLUNT & SONS LTD.

PHONE MIL 2877

NEW PECO MINERAL WAGONS

7/6

Six new names

Ellis & Everard
Black Rock Quarries
Forest Rock Granite
Beswick's Lime
Sussex Brick Co.
English Clays

And new Sifta Salt Van

"TT" GAUGE

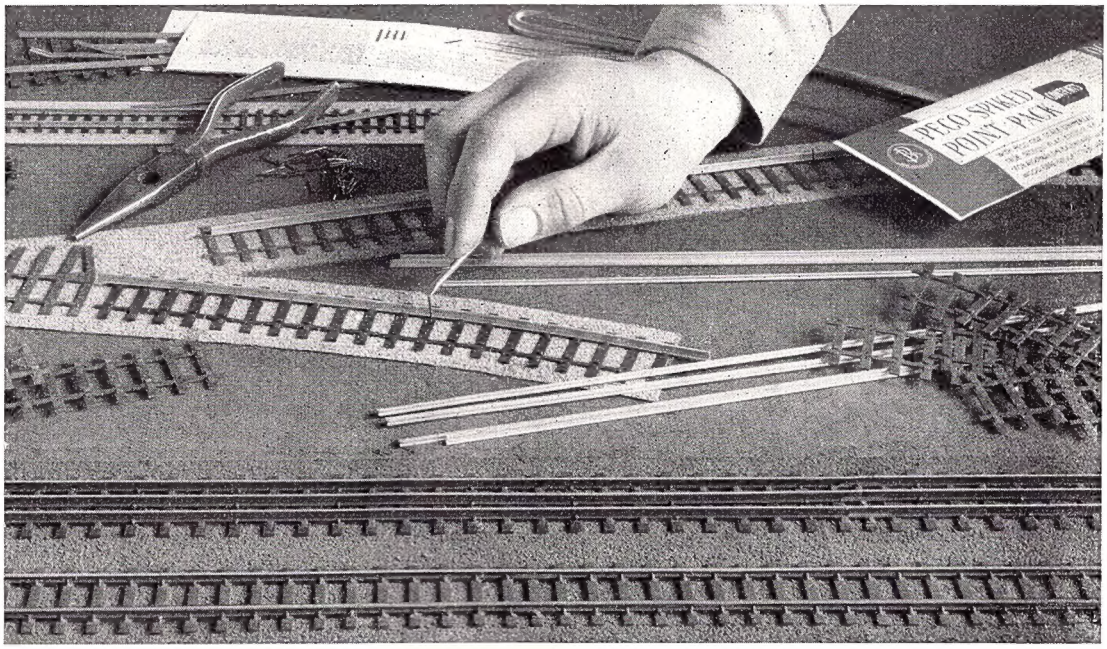
PECO TRACK PACKS (1 yd.) ... ... Steel **4/–** Nickel Silver **5/6**
PECO POINT PACKS (19in. rad.) ... ... Steel **7/6** Nickel Silver **8/6**
GEM FLEXITRAK, 18in. lengths ... ... Nickel Silver **3/9** Points, 15in. rad. **12/6**
S. & B. "TT" Point Lever **2/5**

133 THE BROADWAY, MILL HILL, N.W.7

NEW

SPIKED TRACK NOW IN 3 SIZES

BY PECO



THE POPULAR SO SIMPLE DO-IT-YOURSELF SYSTEM THAT SAVES TIME AND MONEY NOW IN THREE SIZES WITH SLEEPERS SCALED TO MATCH THE RAIL.

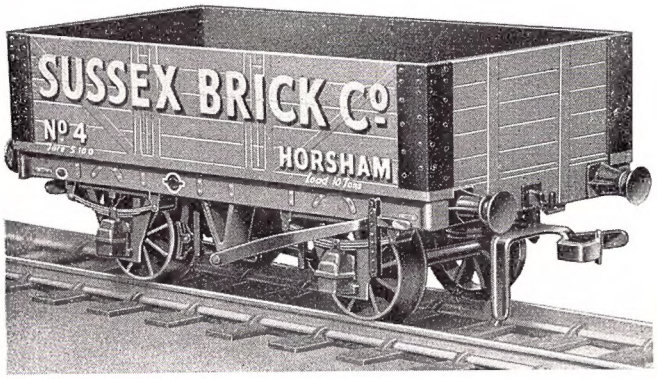
"OO/HO" PROTOTYPE
"OO" UNIVERSAL
"TT-3" UNIVERSAL

Scale Sleepers, Scale Rail. For B.R.M.S.B. "OO" and N.M.R.A. "HO" two-rail, 36in. radius Prototype Points.

For all "OO" or "HO" trains, two- or three-rail, Universal Points 20in. radius, "HI" Scale Rail.

The Track for the NEW Tri-ang Trains, 19in. radius Universal Points, true section F.B. rail.

MINERAL WAGONS IN SIX VARIETIES



Another extension to the popular Peco Wonderful Wagon range. Six most attractively styled five-plank mineral wagons to add more colour to your goods. These easy-to-assemble kits are supplied with wheels suitable for all types of "OO" gauge model railways.

ELLIS & EVERARD Yellow.
BLACK ROCK QUARRIES Black.
FOREST ROCK GRANITE Grey.
BESWICKS LIME White.
SUSSEX BRICK CO. Oxide.
ENGLISH CLAYS Oxide.

ALL PECO WONDERFUL WAGON KITS CONTAIN EVERYTHING YOU NEED TO BUILD A SUPER DETAIL "OO" MODEL WITH WORKING AXLE BOX SPRINGS, SPRUNG BUFFERS, SPOKED NYLON WHEELS, FULL COLOUR AND STRAPPING DETAIL, AND THE FAMOUS PECO SIMPLEX AUTO-COUPLER

ALL ONE PRICE
7/6
COMPLETE

AND A NEW SALT—SIFTA!

PECO WONDERFUL WAGONS NOW IN 23 VARIETIES!

SEE THEM AT THE SHOW!

New revised catalogue ready at the Show 1/6. Free leaflets S.A.E.

THE PRITCHARD PATENT PRODUCT CO. LTD., PECOWAY, STATION ROAD, SEATON, DEVON

PLEASE TELL YOUR FRIENDS ABOUT THE **RAILWAY MODELLER**

FOR WELKUT TRACK

THE CENTRE of RAILWAY MODELLING in SOUTH-EAST LONDON

FOR WELKUT TRACK

KIRDON POWER

Main line 10000 diesel	£5/15/3
2- and 3-rail motor bogies	£2/19/5
Minor power units	45/–
Diesel Body Kits	
10000 diesel	14/9
0-4-0 diesel	14/9
Universal auto-couplers, per pair	2/–

WE BUY

YOUR UNWANTED TRI-ANG AND HORNBY-DUBLO EQUIPMENT SEND S.A.E. FOR OFFER

WELKUT TRACK

Scale nickel silver rail, scale size sleepers. Ideal for Tri-ang and Hornby-Dublo. Smooth and trouble-free, it will not go rusty.

2-rail
5/2 per yard
3-rail
7/- per yard

WHEN ORDERING BY POST PLEASE INCLUDE EXTRA FOR POSTAGE AND PACKING

CRYSTAL PALACE MODEL RAILROADS

24 CHURCH ROAD, UPPER NORWOOD, S.E.19

Any bus or train to Crystal Palace LIV 1218 **Opposite Granada Cinema**

CHERRY'S OF RICHMOND

We advise GEM FLEXI-TRAK

It looks well . . . lays well . . . and stays well. Available from stock in "OO" and the NEW "TT" GAUGES.

Send for our combined list of gauge "O" and gauge "OO" stocks. FREE on receipt of 2½d. stamp.

For 10mm. scale enthusiasts. We now have a GAUGE "1" SECTION under the direction of Mr. P. E. Thomas.

List of parts and components 2½d. stamp.

Our part-exchange service is unequalled. ITEMS, SETS, LAYOUTS purchased for cash.

Repairs . . . Rebuilds . . . Conversions . . . Repaints. Agents and stockists for ALL the leading manufacturers.

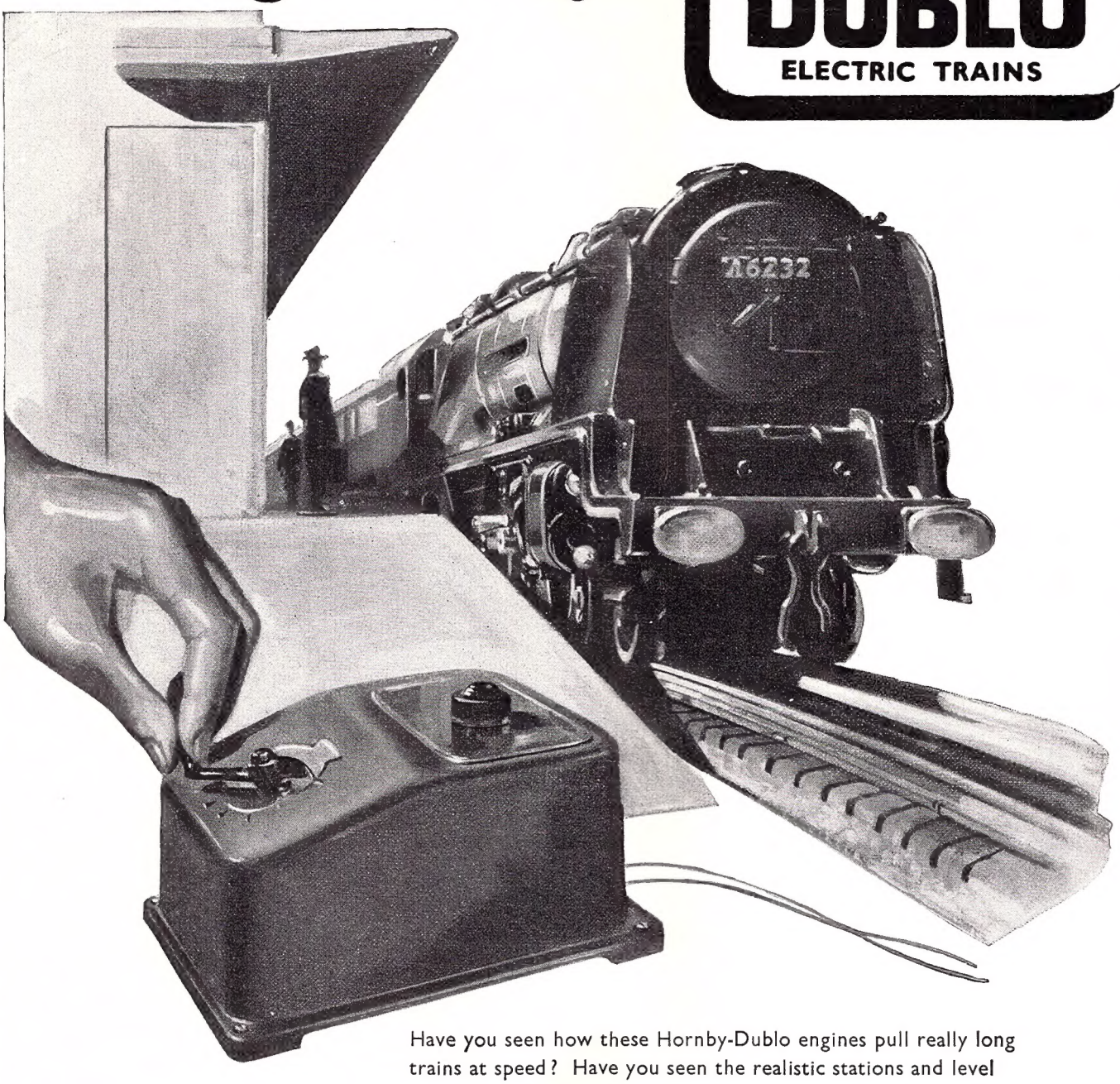
CHERRY'S (Surrey) LTD.
62 Sheen Road, Richmond, Surrey

OPEN 9 a.m. to 6 p.m.
Early closing Wednesdays 1 p.m.
Telephone : RIChmond 2454

KINDLY MENTION THE **RAILWAY MODELLER** WHEN WRITING TO ADVERTISERS

Right away!

HORNBY DUBLO
ELECTRIC TRAINS



Have you seen how these Hornby-Dublo engines pull really long trains at speed? Have you seen the realistic stations and level crossings, bridges and goods vehicles, signals and station staff? Any Hornby-Dublo railway, large or small, is easy to work and perfectly reliable. Ask to see Hornby-Dublo — right away!

★ Ask your local dealer for the new Hornby-Dublo folder in full colour; or write direct to Meccano Ltd., Binns Rd., Liverpool 13, or London Showrooms, 22 Berkeley Square, W.1.

MADE IN ENGLAND BY MECCANO LTD., BINNS ROAD, LIVERPOOL 13

PLEASE TELL YOUR FRIENDS ABOUT THE **RAILWAY MODELLER**

H AND M

For those who insist on Quality

A SECURE FOUNDATION

for your

CONTROL PANEL

The H AND M "SAFETY"

MINOR UNIT

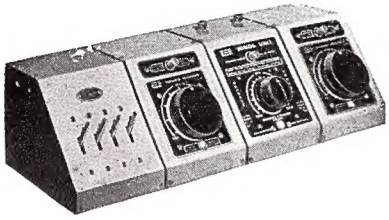
G.R.C. (GRADED RESISTANCE CONTROL)!

SOCKETS FOR EXTRA CONTROLLERS!

THREE-CORE SAFETY MAINS LEADS!

ADD MORE UNITS AS YOU GO!

Suitable for all motors and all systems



The ingenious design of the " Safety " Minor Unit enables you to add to your control panel as you expand. The illustration shows how, by using the " Minor " as a base, the extra controls can be coupled to form a neat, compact panel. From left to right : Flash-switch Unit for Solenoids ; R.C.I. Rectifier/ Controller ; " Safety " Minor and Multipack Controller.

SAFETY MINOR UNIT

54/-

(postage 2/-)

De-Luxe Minor with Variwave Control 12/- extra.

★ Complete 1957 Catalogue of Power Units, Controllers, Solenoids, etc. Price 3d.

HAMMANT & MORGAN
HANDEM HOUSE, 39 MASON'S AVENUE
WEALDSTONE, HARROW, MIDDX. HAR 5424

MODEL ENGINEERING TRADE ASSOCIATION MEIA

RAILWAY MODELLER

Specializing in Small-scale Railway Modelling

The Lobby

EVERY Easter Monday a small band of old friends, amateur and professional alike, arrive at the Central Hall and begin setting up the Model Railway Exhibition. Each year it seems almost incredible that it is only a twelvemonth since we were all together for the same purpose, and it must be admitted that quite a deal of time seems to be spent in saying hallo to those we have not seen for some time. Despite this, the work is tackled rapidly ; there are always plenty of volunteers to help unload, and many willing hands to support baseboards and display pieces while they are being properly secured.

The Model Railway Exhibition could not take place without the willing self-sacrifice of this band of workers, and, of course, the wholehearted co-operation of their wives and families, and we owe them a debt of gratitude that it would be difficult to repay. Without the exhibition, the hobby would be that much the poorer ; indeed, it is true to say that the present status of railway modelling is largely due to the Model Railway Exhibition, for it demonstrates clearly that this is a serious adult hobby. We would suggest to every reader that the best way to show appreciation for their efforts is to visit the exhibition and so make their work worth while.

CONTENTS Vol. 8, No. 78

RAILWAY OF THE MONTH
The Tyling Branch 74

MODEL RAILWAY EXHIBITION
See You at the Show ! ... 80
This is " S " Gauge 81

DO-IT-YOURSELF
Three Terrace Houses ... 78
Building Open Wagons ... 82
The Story of Two Bulldogs 89

PROTOTYPE
From Sir Eric's Notebook 88
B.R. 2-10-0s 90
The Yealmpton Branch ... 91

Craig Boatbuilding Yard ... 86
The " Railway Modeller " Cup Competition 1956 ... 84
Two Trains 85
Minories 92

JUNIOR MODELLER
The Waverley Railway ... 96
Junior Do-It-Yourself ... 97

REGULAR FEATURES
Peco Topics 93
Readers' Letters 94
Personality Parade 98
Club Notice Board 98
Trade Window 99

Seen at the Fair 100

We make no apology for returning to the subject of " TT " gauge again this month, for the interest aroused by the extensive review we gave this new size in model railways last month has been, quite literally, overwhelming. From the letters we have received there is no doubt that " TT-3 " has caught the imagination of many of our readers, not only those for whom 3mm. scale offers the only opportunity of a model railway but also those who realize that the practicability of the smaller size permits them to construct a railway of even greater scope in their space.

It is not merely among the amateurs that " TT-3 " has aroused interest, the Trade too is busy planning extensions of its range in the new gauge. We shall, of course, be reviewing all new items as they appear, and illustrating them in our Trade Window columns.

Such has been the initial development that last month's article is already in need of minor modifications, and to meet this as well as provide a handbook on " TT-3 " as so many readers have requested, we shall be publishing them in a small, popular-priced booklet to be entitled " TT-3 is Here," including many new items and a chapter on 4mm. scale narrow gauge. It will be available after Easter, and, of course, will be on sale at our stand at the Model Railway Exhibition.

Managing - - - - S. C. PRITCHARD
Editor - - - - - C. J. FREEZER
Art Editor - - - - - C. OATES
Advertising - - - - - C. HOWE

Editorial and Advertising Offices
PECOWAY : STATION ROAD
SEATON : DEVON
Seaton 580

Single copy 2/3 Annual subscription 27/-

Distributed to the model trade by the PRITCHARD PATENT PRODUCT CO. LTD., Pecoway, Station Road, Seaton, Devon.

Distributed to the newsagency trade by SURRIDGE, DAWSON LTD., 136-142 New Kent Road, London, S.E.1.

COVER PICTURE

Our Railway of the Month is the Tyling Branch, a beautifully designed " EM " gauge G.W.R. branch line, featured with its constructor, Ken Payne, on our cover shot.

This periodical is sold subject to the following conditions :

That it shall not without the written consent of the publishers be lent, resold, hired out, or otherwise disposed of by way of trade, except at the full retail price of 2/-, and that it shall not be lent resold, hired out, or otherwise disposed of in mutilated condition, or in any unauthorized cover by way of trade, or affixed to as part of any publication or advertising, literary or pictorial matter whatsoever.

Railway of the Month

THE TYLING BRANCH

by Ken Payne

An " EM " gauge G.W.R. branch terminus layout notable for close attention to detail

THE history of the Tyling Branch (as far as the model is concerned) is quite recent, and is the direct result of two earlier lines.

The first, an " HO " gauge terminus layout, was converted to " OO " scale 16.5mm. gauge and became the basis of the second. This line occupied the attic and most of the loft as well, until an expanding family who expected a room to sleep in made it apparent that one or the other would have to go. The family won, and in return for the sacrifice my wife offered me *one* wall of the lounge, the one with a door at the end, which left me with a baseboard fourteen feet long by eighteen inches wide.

It was decided that the lessons learned from the previous lines should be put to good use, and a start was made completely from scratch with 18mm. gauge stud contact. As the available space for the layout is very small, it is intended that it shall be as complete as possible. The scenic work is still not finished.

The line represents a typical small branch terminus on the Western. It is approached through a tunnel at one end of the baseboard, beyond which is a portable section on which outgoing trains are turned round.

Rolling stock so far consists of one solitary Exley (due to be replaced with a couple of clerestories when I have time to build them), and an assortment of wagons including Peco and home-made. The " 4800," which is my first attempt at loco building, is powered by an X5 motor and has a fairly steady crawl with half-wave rectification. My next loco will probably be a Barnum. Yes, I know the period is wrong, but I like them.

The construction of the layout follows fairly standard practice with the possible exception of the track. I have a hearty dislike for the all-too-prevalent standard and straight track principle. Full-size lines always have transition curves, and a model never looks right without them. Hence the preference for stud contact rather than two-rail. It allows me to use rail soldered to brass sleepers, which is one of the easy ways to obtain track that looks as if a platelayer had a hand in laying it.* The following method of construction has been found to give complete satisfaction.

Lightly draw in the layout on the baseboard, using card or tin templates of varying radii for the curves. Make sure that the sharpest curve is at least six inches larger than the minimum radius decided upon. (Always aim to have your curves as large as possible—mine vary between five feet and eight feet odd.) You now put in the transition by eye, simply by pushing the curve out to a smaller radius in the middle, and letting the ends fall away into the straights or reverse curves. Never mind if your freehand drawing is a bit shaky, it is only meant to act as a guide for the actual track-laying. I find that if the basic layout is drawn the rest can quite easily be faired in by eye, using a template of minimum radius to ensure that the curves are nowhere too sharp.

Now solder one length of rail to the sleepers in a conventional jig, using extra long ones where points occur—they can be cut to length later. The length is now pinned in place on the baseboard, using the drawn line as a guide but allowing the rail to form its natural contour. The second rail can now be soldered to every sixth or eighth sleeper, using a track gauge to hold it in place. After careful examination for kinks the remaining sleepers can be soldered.

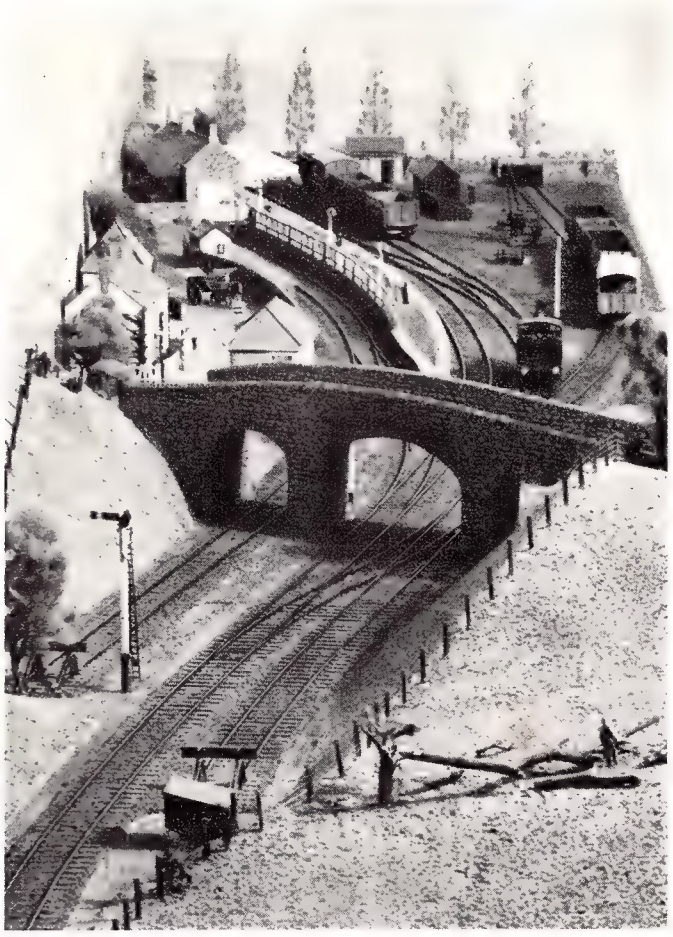
If the length of track has a point in it, proceed in exactly the same way, laying the outside rails first and using two track gauges to determine where the frog should come. By this method, points on a curve are just as easy to make as straight ones, and look far more effective.

As each length of rail is made up, great care should be taken to ensure that there are no kinks at the rail joints. Avoid having joints too close to points.

When all the track has been laid, paint the lot a dirty brown while still in place on the baseboard, wipe the rail tops clean, allow to dry, and then take it all up. But make sure that you know which piece goes where !

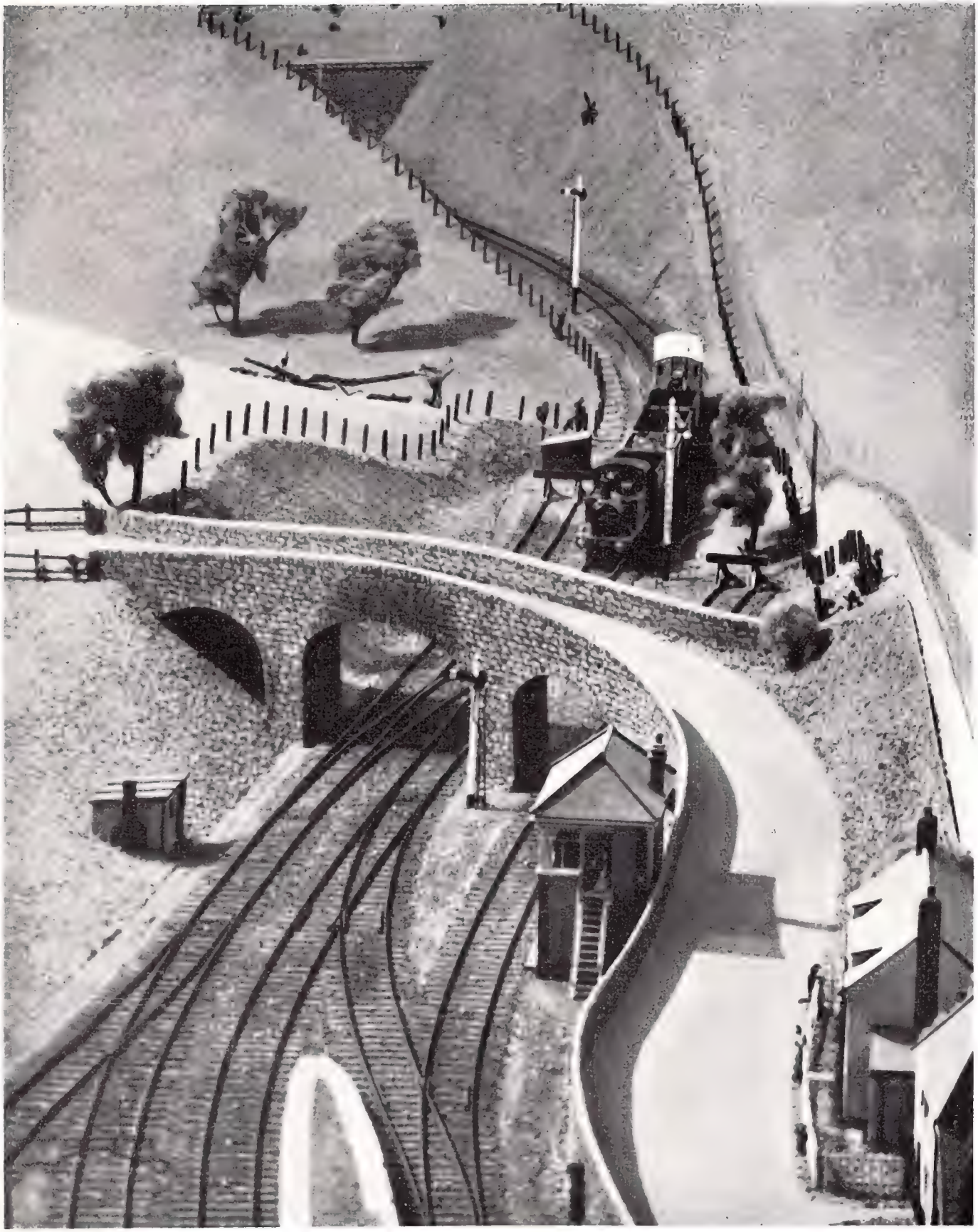
You will now find that your layout is accurately marked out on the baseboard by the unpainted patches where the sleepers were.

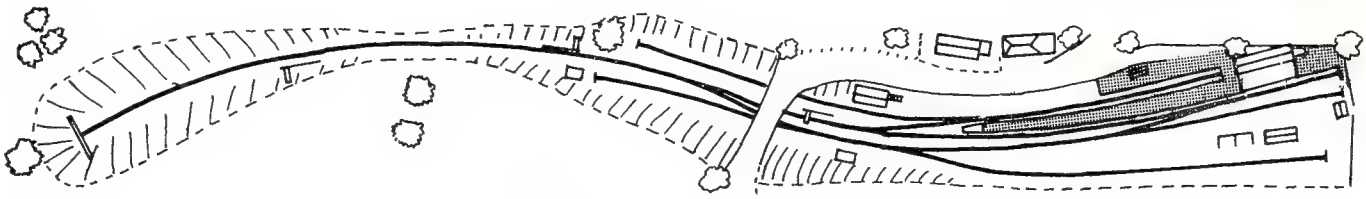
I use $\frac{1}{16}$in. cardboard—the brown variety—for my track base, but cork would probably give quieter running. The card (or cork) is cut to cover everywhere the track has been, leaving a margin of about $\frac{1}{2}$in. at each side. Lay it in place on the baseboard, making sure that the ends butt up nicely, and lightly pin it down. Now lay your track back in place on top of the card. Draw a line



Tyling station taken from a point directly above the tunnel mouth. This picture and the one on the facing page, which is taken in the opposite direction, give a complete picture of the visible portions of the model. They show how effective carefully laid track, swept in easy curves across the baseboard, can be. This is the effect to aim for on any scenic line.

* This effect can just as easily be obtained in two-rail, with home construction or flexible track.—Ed., R.M.





PLAN OF TYLING BRANCH

Scale : $\frac{1}{2}$″ = 1′ 0″.

$\frac{1}{8}$in. from the ends of the sleepers, except between adjacent lines and where you have yards, etc. Here the card should go right across. Remove the track again, and cut round the pencilled lines on the card, using scissors at an angle to give a bevelled effect to the edge. Before removing the card to do this, it is as well to put some marks on the baseboard to ensure that it goes back in the right place after you have cut it.

The card can now be glued and tacked in place and held with weights until dry. Gluing the edges is sufficient, and running is quieter than when glued all over. You now proceed to lay the track a length at a time by painting the top of the card liberally with glue, including the bevelled edges where you have them, pinning the track in place and well covering with Peco ballast before the glue sets. When the glue is hard, surplus ballast can be brushed off and the edges trimmed.

In the case of large layouts it would probably be as well to deal with one section of, say, ten to twelve feet at a time.

The procedure is not as complicated as it sounds, and the result is very pleasing. A friend of mine who had not done any railway modelling before used this method, and his track would make many an experienced modeller envious.

My points and signals are so far operated by hand from under the baseboard, but eventually I hope to control them electrically.

I use a Shenphone C7 controller at present, and this is on a long wandering lead so that I can get a little variety from my short line by taking up various viewpoints. I find that always viewing a train from a static control panel gets a bit tedious after a time. Have you ever tried looking at your layout in a large mirror placed at the *back* of the baseboard? Apart from everything being lefthanded it is quite fun !

My couplings are the hook and bar type—hook at one end, bar at both. They are bent up as shown in the sketch from 30 s.w.g. piano wire, the bars being looped around the buffers. The hook is held in place by clinching the bar with a pair of round-nose pliers on either side of it. I find that they are best placed off centre to avoid any possibility of fouling the standard hook on the buffer beam. The ramps for uncoupling are bent in the form of a bow from the same wire, and placed between the pins and the track.

The countryside around Tyling is built up from large sheets of thin card stuck and pinned to hardboard templates, covered with sawdust and painted. A point to watch here is to make sure that the contours on both sides of the line blend with one another. Remember that it is supposed to have come first.

For trees I use cotton-wool dyed a yellowish green, spread over privet twigs (glue is unnecessary), and roughly sprayed with a dark green flat paint. I still have to learn the knack of getting the "foliage" to look completely natural. The whole art of this method of tree-making is the way in which the cotton-wool is put on the twigs, but a little experimenting and patience can be well rewarded.

Buildings are constructed from layers of card, using $\frac{1}{16}$in. Perspex for windows with the frames scratched in with a sewing needle as described by John Ahern. Incidentally, the Tudor cottage shown in the photograph is intended to be the local pub when I get around to producing the necessary signs. Miniature sign writing has so far proved beyond my capabilities—hence the name "Tyling." The station and signal-box nameboards were cut from two black and white advertisements which included the word STYLING—remove the S and you have it! So far I have not come across a coloured advertisement which mentions "Pig and Whistle" or "Railway Arms" in letters $\frac{3}{16}$in. high.

My father was persuaded to paint the background, and he has made an excellent job of blending it with the model. Just what part of the country it represents I am not sure, but as it portrays hilly moorland I usually tell inquiring visitors South Somerset.

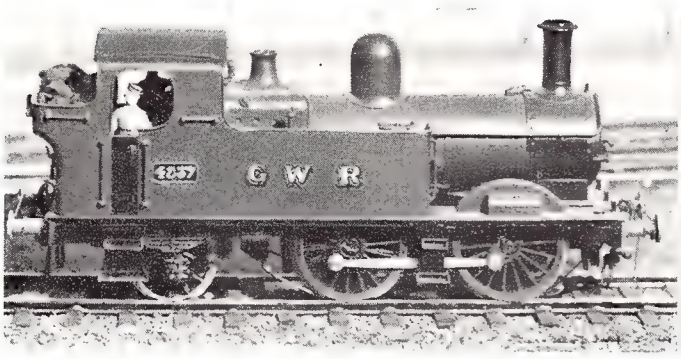
What future developments will take place on the line it is difficult to foretell. Unlike most railway modellers these days, I like the conventional oval of track where I can sit and watch a train "chasing its tail"—provided the engine and tail are a reasonable distance apart the long way round! The station end of the line is arranged so that it could be extended to form a through station should I be lucky enough ever to acquire a longer wall.

As far as the line goes, it does give me complete satisfaction, and the only thing I intend to alter is the type of stone paper covering the bridge.

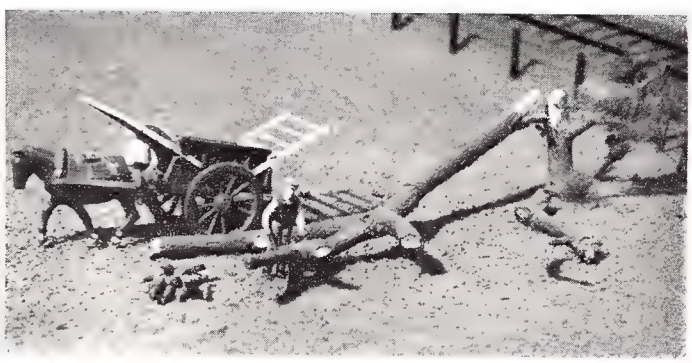
Should a modeller be faced with the predicament of having to scrap his line and start again he should not be too discouraged. Past experience is a wonderful teacher, and a completely fresh start gives one a golden opportunity to dispose of that nagging feeling "I wish I hadn't done it that way."

My energies are at present being devoted to rolling stock, and

This neat model of a 48XX (now 14XX) class 0-4-2T provides appropriate motive power for the Tyling Branch.



Timber! A felled and lopped tree in process of being cut up is a common lineside sight, but despite the fact that the basic ingredient —a well-shaped twig—is easily obtained we have never before seen it reproduced in model form.



This close-up of Tyling platform end shows the effectiveness of an uncluttered scene. The platform fence, turning the road behind into a pure siding, is an interesting feature.

a pair of Macaw " Bs " are well on the way to completion. In conclusion I must express my very sincere thanks to John Christie for his skill and patience in producing the really excellent photographs. In case she reads this, I ought also to mention my better half, whose forbearance in the face of a work-bench with all its attendant " mess and litter " in the " best room " is, I think, quite commendable, especially when it goes as far as allowing me half of the sideboard for use as a tool cupboard !

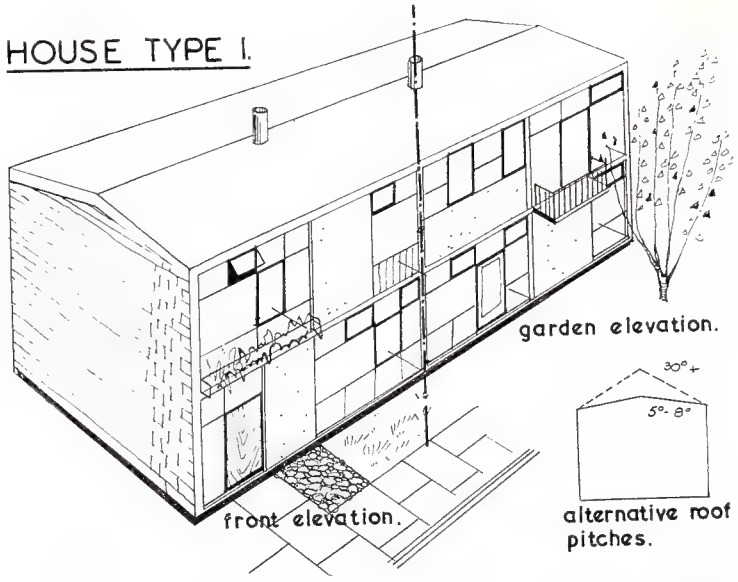
Tyling approach roads and signal box. The track looks just as effective from this angle—as indeed all well-laid track must.

BUILD YOURSELF

TERRACE HOUSES

by Stanley Elson, A.R.I.B.A.

Bring your railway up to the minute with a row of contemporary houses.



THE Town Council of Potters Heron, a small town on my model railway, recently held a competition for some terrace housing which they intend to build on a vacant site adjacent to the railway station. Of the many plans submitted I have selected three, in the hope that other modellers may be sufficiently interested to build one or more rows of them for their own railways.

Of the three houses selected, Type 1 is by far the most unorthodox and I will confine myself in this article to explaining how to build it. The other two houses, being of more traditional construction, can be built very easily by using the normal methods of modelling.

Before commencing work it is essential to ascertain the number of houses to be built. The width of each house in 4mm. scale is 72mm. + 2mm. either end of the terrace—or a little under 3in.—and the depth, if modelled in full, is about 80mm. or 3⅛in.

Having selected the site and found the number of houses to be built, a start can be made by drawing up the houses full scale, and this drawing can be used to build off as a jig, due to the type of construction involved.

1. FRONT AND REAR OF BUILDING

A piece of flat celluloid or flat $\frac{1}{8}$in. Perspex is obtained the exact length of the total number of houses to be built, i.e. if four houses are built the length required will be 4mm. × 72mm. = 288mm. + 4mm. =292mm., and the width 69mm.

Upon this "glass" is built up the whole face of the building, using the plans as a jig upon which to build.

Lines representing all the glazing bars of the windows, including the outside frames, should then be scribed on, using a steel rule straight-edge and a darning needle. When this has been completed, all the bars can be filled with white ink, using a ruling pen to place the lines accurately.

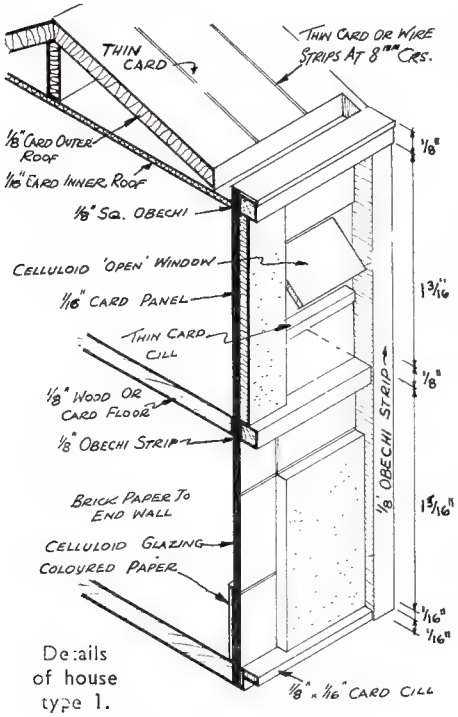
It is most important that all the bars should be drawn in at this stage, as if attempted later on the modeller will find difficulty in keeping the lines straight and running the ink right into the corners. Windows shown as being open should be cut or fretted out and the opening cleaned up with a fine file, but no attempt should be made yet to fit the celluloid in the open position.

The frame is made out of $\frac{1}{8}$in. square-section wood, carefully sanded before being used. I advise the use of brich, or possibly obechi. I never use balsa, as I personally find it far too fluffy and it requires a great deal of preparation before it can be painted. I much prefer to obtain my results as simply as possible.

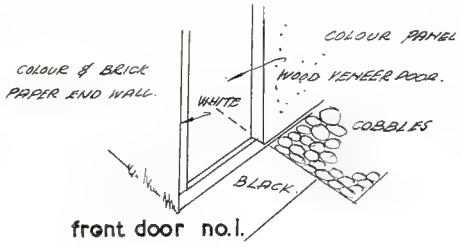
The first strips to be cut are those representing the walls or vertical partitions, and it is essential that they should be cut square to the ends. Duroglue or Certofix, but not balsa cement, is then applied evenly and thinly over one face, and the strip firmly stuck down on to the "glass" in the appropriate places. I have found that ordinary pins stuck around the "glass" through the drawing are all that is required to keep everything in alignment until the front has been finished. If both elevations are to be modelled, the second wall should be carried through to the same stage to allow the glue a short time to set before further work is attempted.

The eaves and first floor projection are next marked out accurately on the $\frac{1}{8}$in. birch, again ensuring that the ends are cut square. The ground floor sill is cut from a piece of $\frac{1}{8}$in. × $\frac{1}{32}$in. birch, or even card of the correct thickness, and then glued to the glass. It is important that all the floors are aligned correctly, so that they present parallel—and not wavy—lines when viewed at an angle. Uneven lines would definitely spoil the model and make later work difficult.

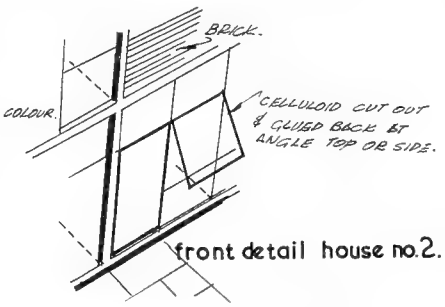
When all the glue has thoroughly set, the various solid panels can be cut out, using coloured card of about $\frac{1}{16}$in. thickness or wood veneers. The veneers should be sanded to a smooth fine finish, and if used for garage doors vertical lines at 2mm. centres should be scribed on to



Details of house type 1.



front door no.1.



front detail house no.2.

represent 6in. vertical boarding. The veneers used for front and back doors should not be scribed.

All the panels, including brick paper and tiled paper panels, can now be glued on, and if timber-framed glass doors are required they can also be stuck on, using a thin white card with a slightly glossy finish, such as postcard. Use a sharp blade and a steel rule on all the panels to ensure that they are all cut square and that there are no fluffy edges.

The next operation is to make the main structure of the building. For that I use $\frac{1}{8}$in. smooth-faced cardboard for all main walls, ground and first floor, and $\frac{1}{16}$in. card for the inner and outer roof. These are all marked out accurately on to the card, and cut squarely. The first floor and under roof should run the full length of the house less $\frac{1}{4}$in. while the ground floor is cut 1mm. smaller all round than the maximum depth and length of the house. Only the end walls run the full height of the building—the others run only between floors.

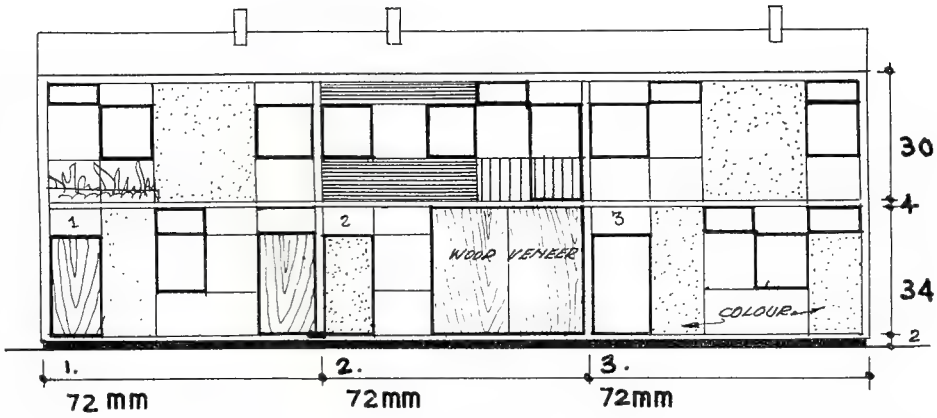
Before being assembled the walls can be painted with poster or oil colour to represent distemper or wallpaper, but the floors can be left plain or coated with shellac to give the appearance of a parquet floor.

The walls and floor can now be firmly glued together, ensuring accurate alignment, so that the front faces will fit accurately when adjusted.

Using the end walls, which have been cut to the pitch of the roof, as a guide, the outer roof is now built up, using $\frac{1}{8}$in. card. A rib along the centre line of the roof pitch is glued to the under roof, together with the two leaves of outer roof, cut with a splay on the outside faces, so that when they are fitted home a small gap of $\frac{1}{8}$in. is left, representing the secret roof gutter.

When everything has set firmly the front and/or rear walls are glued into place, making any necessary adjustments in alignment with books wedged against the walls, and a sufficient weight on the outer walls to keep them firmly bedded on to the inner box while the glue is setting.

If the end walls are to be finished to represent brickwork use brick paper of the selected shade and tint, but preferably new



brick. I used yellow stock brick paper, marked and cut out and carefully glued home, squaring off the corners with the fingers to get a sharp arris.

The roof is then finished, using tile or slate paper if so desired. If (as in my own model) it is desired to use a metal sheeting, a thin piece of card in a grey colour, which can be obtained in sheets 20in. × 25in. from your local art dealer, is cut to the contour of the roof and glued into place. The mock flashing and fascia board are also made from a similar piece of card and stuck on to the $\frac{1}{8}$in. birch strip at the front of the building and direct to the walls at the ends. The lead or copper roll joints are made with thin strips of card or thin wire glued to the roof at 8mm. centres.

Chimney-pots of dowel painted red are added in the correct positions on the roof; $\frac{1}{4}$in. high × $\frac{1}{8}$in. diameter is about right, representing a 1ft. 6in. × 9in. diameter chimney-pot.

Before painting the open celluloid windows, flower boxes made of thin card and filled with coloured sponge can be fixed around the balcony and small pinheads with the shanks cut off to within $\frac{1}{4}$in. of the head should be fixed to the doors to represent knobs, etc.

All the wood veneers should be coated with shellac to give a varnished appearance.

The colours I leave to you, but I would strongly suggest that brown, green and dark blue be avoided. For those interested, the following colours were used on my own models:

House No. 1

Yellow brick end walls.
White fascia to first floor and roof.
White sill to ground floor.
Sapele mahogany veneer door.
Red flower box.
Pale lime green panels.
Medium battleship grey tiles.

House No. 2

Blue brick panel.
Mahogany veneer to garage doors.
Yellow front door.

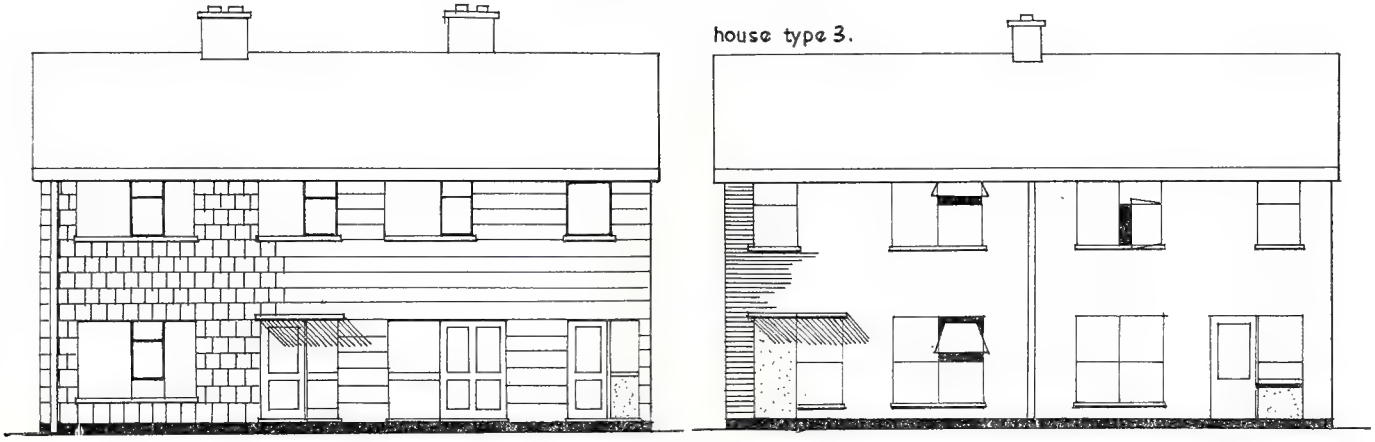
House No. 3

Pale blue panels.
Medium battleship grey door.

For the other two houses I suggest that all woodwork should be finished white, and that the front doors be red, pale blue, lime green or yellow. The plinths in all three houses should be painted black to represent tarring.

For the cobble-stones in Type 1 house I used pearl barley set in alabastine, which, when painted a dark purple grey and varnished, gave an excellent representation of the real thing.

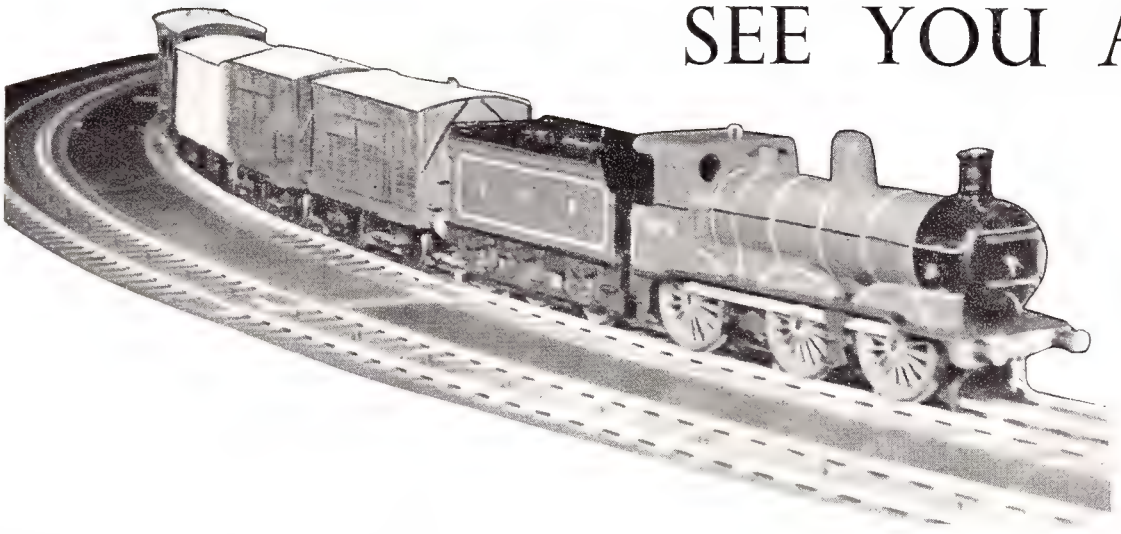
House elevations 2mm.=1′ 0″.



SEE YOU AT THE

23R

APRI



Opening 12 noon to 9 p.m. on April 23 ; 10.30 a.m. to 9 p.m. for remainder of show

THE MODEL RAILWAY EXHIBITION

CENTRAL HALL WESTMINSTER

FOR the past few months we have ended all our conversations with fellow enthusiasts with the phrase "See you at the show!" There is no need to say where, when or what the show is, for we all know that we can only mean the Central Hall, Westminster, the week after Easter and the Model Railway Exhibition. In short, this annual event is now a national institution, and an important part of every modeller's year. More than this, just as every true Mohammedan should endeavour to make one pilgrimage to Mecca, so should every true railway modeller visit the Model Railway Exhibition.

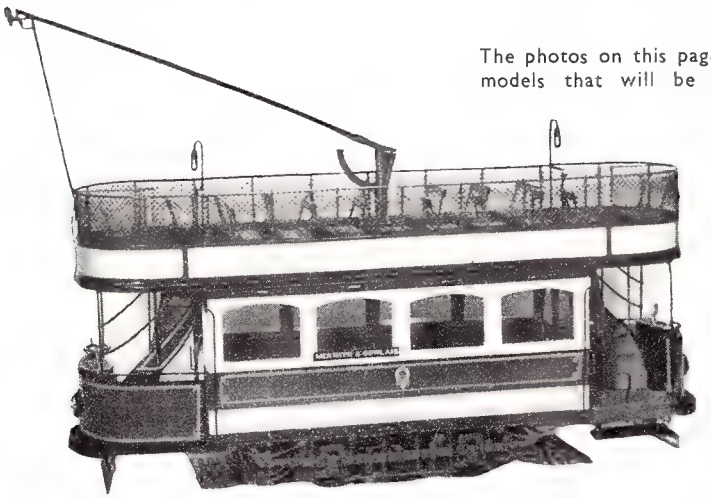
This year, more than ever before, it is a must, for "TT" gauge will be an additional feature on the trade stands, and even though you have seen a full report in last month's RAILWAY MODELLER, this is not the same as seeing it in the flesh. Anyone who is contemplating the new scale should without doubt see the full range.

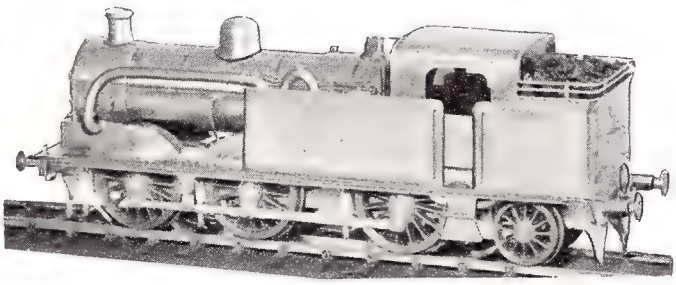
Apart from this, all the usual features which have made the exhibition so popular will be there—the working layouts, the static displays, the trade stands and, of course, the passenger-carrying track. It is difficult indeed to attempt to describe the variety and richness of the items on show ; indeed, to do everything justice would take more space than we can possibly spare. Moreover, it is certain that a single visit will not suffice to see and absorb everything, for there is always plenty that demands not a cursory glance, but a long and detailed study. There may, for example be the very model you are beginning on view on one of the static displays, and from this you will undoubtedly gain much help. Better still, a few inquiries made of the nearby steward—who may indeed be the man who built it—will probably be of even greater assistance. There will be several scenic features arranged for close study, not to mention the working layouts, which provide food for thought not only for those about to build a new model, but for those whose system gives some slight dissatisfaction.

We have mentioned the trade stands earlier in connection with "TT," but this will not, of course, be the only new item to be shown. Indeed, such is the quantity and quality of new goods to be seen at this annual event that we find it necessary to set aside a deal of time to record everything for later review in Trade Window. The private individual will enjoy the time he will spend in gaining a full appreciation of this year's new productions.

But to limit the exhibition solely to a consideration of the exhibits is to omit one of the most important parts of the show—the friendly atmosphere that pervades the hall from the opening day to the close. The organizers, the Model Railway Club, are always ready to welcome the enthusiast, and many fine friendships have come into being as a result of meetings at the show. Indeed, many modellers seem to visit the show principally to meet their friends, and only incidentally to see the models, for what finer rendezvous could there be than this? Indeed, if there is any fault with the exhibition it is that it is so full of good things that it is a pity it does not run for a longer period.

The photos on this page show some of the models that will be featured this year.





SHOW!

-27TH

The "S" Gauge Society will be exhibiting a static display at this year's Exhibition, and for the benefit of readers who may be wondering what it is—

This is "S" gauge

ALTHOUGH there were isolated attempts at "S" gauge, or "Half 1" as it was called around the 1920s, it was not till about 1935 that a definite attempt was made to establish it as new scale and gauge.

It was about this time that several letters appeared on the subject in the correspondence columns of the various model railway journals.

Several interesting models were also constructed by various enthusiasts both in the London and Manchester districts, one of which was featured in the April 1939 issue of the *Model Railway News,* and this particular model (a Midland Railway 0-4-4 tank by "Theta") received favourable comment from several well-known authorities in the model railway world.

The second world war then put a stop to any development for several years, but in 1946, after an announcement in the model railway press, the "Half 1" Model Railway Society was formed to foster the interest in the scale. Incidentally, the society decided by ballot in 1952 to drop the "Half 1" and substitute "S," as it was thought to be less confusing owing to the fact that "1" gauge has adherents who model to both 10mm. and $\frac{3}{8}$in. to the foot.

The reason why "S" gauge came into being was that it was thought to be a happy medium betwen "O" and "OO" gauges, combining the advantages of both scales, viz. the detail and "volume" of 7mm. and the space-saving qualities of the smaller gauge.

For those who may be contemplating making a start in "S" it must be stated here and now that in this country it is not catered for by the trade. This may dishearten many people straight away, but on surveying the problem it will be found that no end of 4mm. scale fittings and parts, being a little coarse, are just dead scale for "S" gauge. Trackwork is no problem, as "OO" bull-head and flat-bottom rail are both just as suitable, as also are several brands of chairs.

"OO" buffers, axleguards, signal ladders, brick papers, vents, etc., are just a few of the articles that are suitable for "S" gauge.

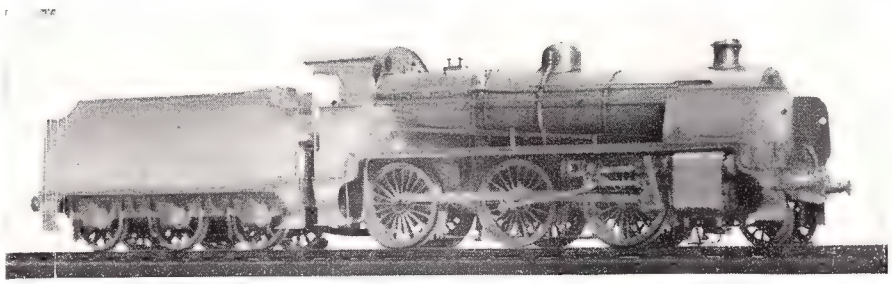
With regard to locos, "OO" mechanisms are quite suitable, as also are several government surplus motors.

As far as the wheels are concerned, a prototype with up to 5ft. 7in. drivers can be constructed by making use of certain "OO" wheels. These admittedly have a few too many spokes, but, as can be seen from the photographs, they do look quite presentable.

The "S" Gauge Model Railway Society markets a small range of essential parts to its members, including loco, tender, wagon and coach wheels, coach and wagon axleguards, and numerous other small fittings made especially for the scale.

In closing it must be mentioned that I do not consider this scale the answer to everybody's problems, but the modeller who constructs his own stock, and is not interested in the various commercial lines on the market, will, I think, find plenty of scope and a lot of satisfaction in working to 3/16in.=1 foot, which is "S" gauge.

Details of parts, etc., may be obtained from E. A. Manning (hon. secretary "S" Gauge Model Railway Society), 81 Riverview Road, Ewell, Surrey.



Top of page: S.R. 0-6-2T class E1/R built of nickel silver and brass, fitted with Zenith mechanism and arranged for stud-contact pick-up.

Left: S.R. class N 2-6-0, unpainted, built by B. Wright.

Photos and notes by B. Wright.

"S" gauge Southern M7 0-4-4T, main superstructure by Mr. Forrest, details and chassis by the author.

DO IT YOURSELF, No. 16

OPEN WAGONS

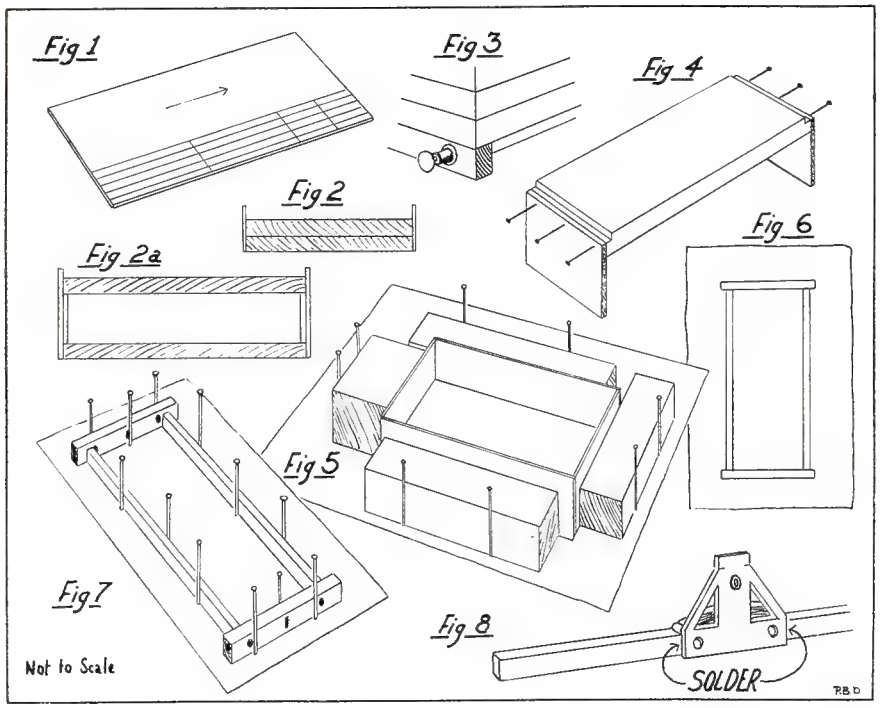
by Peter B. Denny

No matter what your scale may be, from " TT-3 " upward, this article will tell you how to build open wagons from simple components.

THERE comes a time when most model railway enthusiasts want to build their first goods wagon without the aid of a kit of parts. It may be because their fancy has fallen for a vehicle for which no kit is obtainable, or because they realize that by limiting their purchases to such components as are not easily made at home they can have three wagons for the price of one, or because they want to try their skill at craftsmanship, while in any case, for those working in scales other than 4mm. few kits are available. The following notes on the construction of open wagons may therefore be of interest to those starting in various gauges. They are based on the writer's experience in both 4mm. and 10mm. scales, and since the principle is basically the same it is proposed to indicate the scale only when different treatment is called for; otherwise these notes will apply equally to 3mm., 4mm., 7mm. and 10mm. scales.

SIDES AND ENDS

Having selected the prototype and obtained a blue-print or made a drawing, the first step is to decide on the material to be used for the sides and ends; so often otherwise good models are spoilt by having these overscale. In practice, wagon sides and ends are seldom more than 3in. thick, which works out at 1mm. in 4mm. scale and about 1½mm. and 2mm. in 7mm. and 10mm. scales respectively. The writer's preference is definitely for wood rather than cardboard, on account of its greater stability—1mm., 1/16in. or 2mm. plywood as the case may be. Begin by marking out the sides and ends (Fig. 1), remembering that the sides will overlap the ends and that as a result the ends will have to be narrower than the overall width by twice the thickness of the sides. Before cutting out, the position of the joints in the planking should be scored on by using a slightly blunted tool and a steel rule. The depth and width of the cut will depend on the scale, but the thing to aim at is a V-shaped groove, and even if it does look a bit large it will be smaller when painted. Try to avoid a vertical cut such as is imparted with a sharp instrument—this only weakens the side and will eventually be blocked with paint and become inconspicuous.



It will probably be found that after scoring the sides in the thinnest plywood there is a tendency for them to curl slightly. This can be counteracted by scoring similar lines on the opposite side; in fact, unless the wagon is to be permanently loaded the planking divisions should always be marked both on the outside and the inside. The sides can now be cut out—the thinnest woods with a razor blade or sharp knife, but for thicker woods it will be necessary to use a fine saw.

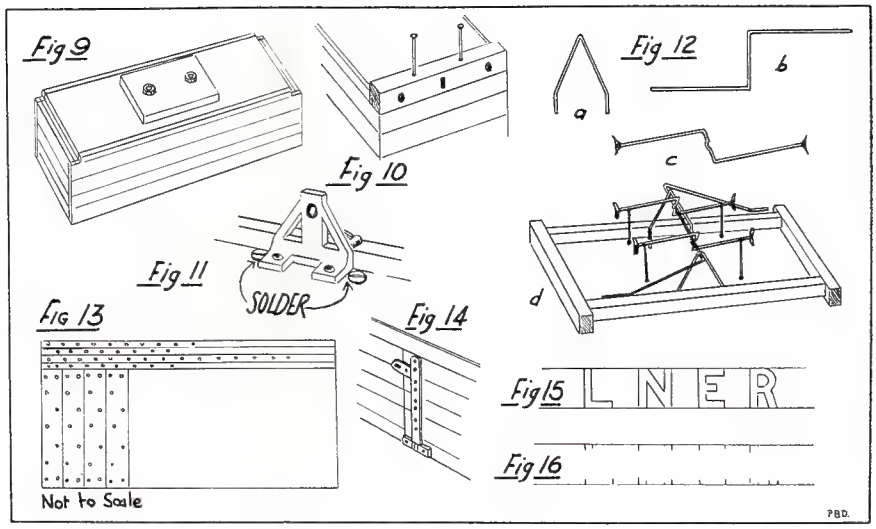
FLOOR

The next task is to prepare the floor. If the wagon is to be permanently loaded this can be of any thickness within the height of the sides, although in actual practice it may be found best to use two pieces of ¼in. wood in all cases, since it is not always easy to cut thicker woods so that the sides are dead square. Fig. 2 shows the arrangement for 4mm. scale and Fig. 2a for the larger scales, in which the two pieces of wood are separated by small strips glued into the four corners of the wagon. For unloaded wagons the overthick floor must be avoided at all costs and the floor should then be of the same thickness material as the sides and ends. Before assembling the body it will be noticed that if the prototype is of the older type of wagon having a wooden underframe the buffer beam may extend above the solebar to the thickness of the floor (Fig. 3). In order to produce this effect the depth of the ends must be shortened and the sides cut away to accommodate the buffer beam. The floor must also be cut away in a similar manner in the case of permanently loaded wagons, as in Fig. 4, using a small file or saw for the purpose, while the wood is held in a vice. With unloaded wagons it will only be necessary to cut the floor shorter than the overall dimensions by twice the thickness of the buffer beams.

ASSEMBLING BODY

The next stage is to assemble the floor, sides and ends. This should present no difficulty with permanently loaded wagons with over-scale floors. Begin by gluing and pinning the ends in place. The pinning can be done by using lill pins or ordinary domestic pins, which are tapped in for ¼in.; nipped off and hammered home. It is important to see that the sides of the ends are flush with the sides of the floor and that the ends are at right angles to the floor. Fix the sides in a similar way and then glue in the upper blocks (A, Figs.

2 and 2a), separating them where necessary in the larger scales with small pieces of stripwood glued in the corners of the wagon. With unloaded wagons in the larger scales where the thickness of the plywood permits the insertion of pins a similar method can be adopted, but in the smaller scales this will not be possible and it will be necessary to depend on glue alone. The writer's method is to place a piece of paper on a flat wooden surface and assemble on it the floor, sides and ends, liberally gluing at all joints. Four pieces of wood about as high as the wagon should then be placed against the sides and ends and held in place with nails—a raid on the children's toy box will often produce bricks which are suitable for this purpose! (Fig. 5). When the glue has set the bricks can be removed and the paper carefully peeled off the bottom and finally rubbed with glasspaper. The resulting wagon may seem a little flimsy in 4mm. scale, especially if it is of the type where the buffer beams are set up in the body, but remember the corners will be reinforced with the strapping and additional stability will be imparted when the buffer beams and solebars are fixed in place.



ALL-METAL UNDERFRAMES

The underframes can be of wood or metal or a combination of both, irrespective of the material used in the prototype. All metal is perhaps best for unloaded wagons in 4mm. scale and these can be made up entirely from brass section bar or by using combined solebars and axleguards such as are obtainable in white metal. Mark out on a piece of paper a plan of the underframe (Fig. 6). Now cut lengths of brass strip for the buffer beams and solebars to the appropriate sizes, drilling out all holes for buffers, couplings, etc., place on the drawing and hold in position with pins (Fig. 7). Then run a little solder into the four corners to make a fillet. It will be found best to insert the buffers into the beam before soldering so that the one soldering operation fixes the buffers in place and at the same time anchors the beam to the solebar. If spring buffers are being used plug the end of the tube with a piece of wood dowel (a matchstick rubbed down will do) before soldering. The frames can now be turned over and the axleguards soldered in place, if combined solebar and axleguards are not being used. Care must always be taken when soldering to white metal; always apply the iron to the brass and the solder to the white metal and as soon as the solder begins to flow nicely around the joint remove the iron quickly and the job is done. When soldering axleguards in place they too can be held with a couple of pins and the solder applied on the inside of the solebar (Fig. 8).

The wagon bodies can now be fitted on to the underframes and if pins with the heads filed flat are passed through the floor from the inside the body can be secured in place by soldering the solebar to these pins. Alternatively a piece of flat metal that will just fit between the frames can be fixed to the bottom of the wagon floor with small nuts and bolts and the solebar soldered to this (Fig. 9).

WOODEN UNDERFRAMES

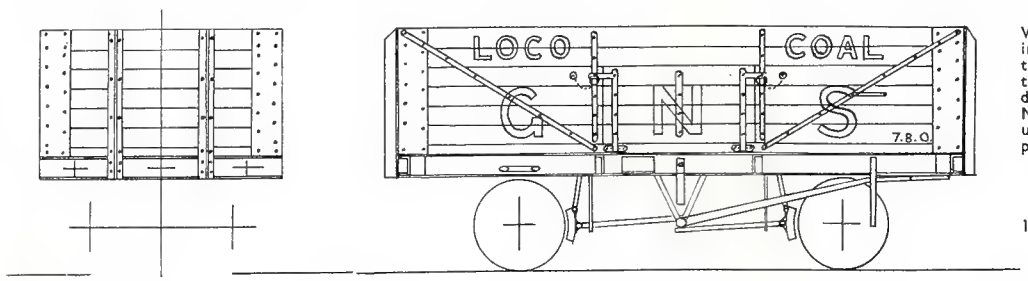
In the larger scales and with wagons which are permanently loaded, i.e. those with thicker floors, all-wooden underframes are probably quicker and easier to make. They can, moreover, be built up on to the wagon body. The writer's method is first to pin and glue the buffer beams in place, having first drilled vertical holes between the buffers and the couplings (Fig. 10). In the larger scales veneer pins can be used for fixing the buffer beams and solebars in place. The solebars can now be cut to the correct length and width and inserted between the buffer beams. In the larger scales where the axleguards have side fixing holes these can be screwed in place with the smallest brass wood screws, holes being carefully drilled for the screws and the part of the screw which projects through the solebar cut off and filed flat. In the small scales it may be found easier to solder the axleguards to small screws inserted in the floor of the wagon (Fig. 11). Sometimes it may be found best to combine wood and metal by using wooden solebars and metal buffer beams, or vice versa, but the method of fixing to the wagon body will be as has been described above.

BRAKE GEAR

We have been thinking of building wagons where purchased components have been kept to the minimum, i.e. wheels, axle-guards, buffers and perhaps couplings. Most perfect examples of brake gear can be purchased in 4mm. and 7mm. scale, but so often, if the wagon is to be seen primarily as part of a layout, all that is really necessary is a suggestion of brake gear, especially in 4mm. scale. The writer's method in 4mm. scale is to shape two hangers from brass wire and solder to the solebar or insert in the floor of the wagon (Fig. 12a). The brake lever consists of a bent wire shaped as 12b and the brakes themselves are wire shaped as 12c, with small segments soldered on the ends. The handles should first be soldered into the "V" hangers and the brake arms soldered to the cross rod. Pins inserted in the floor can be soldered to the brake arms to represent hangers (Fig. 12d). In the larger scales the only way is to cut out the bits and pieces from sheet metal and solder and pin together.

STRAPPING

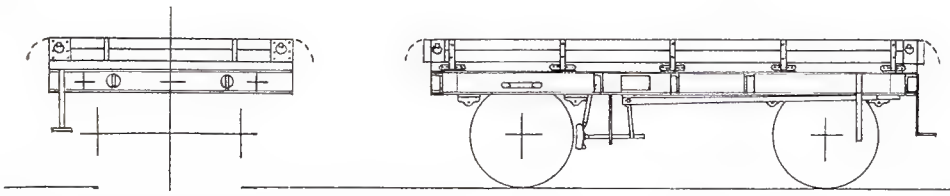
This can easily be made from paper or thin card according to scale and it will have the advantage over the commercial product that the rivet heads will be sure to come in the right places. Mark out on a suitable thickness of paper or card (good quality writing paper for 4mm., cartridge paper for 7mm. and postcard for 10mm.



We have, of course, published many drawings of open wagons in the past, but for the convenience of readers we are illustrating this article with a selection of drawings of G.N.S.R. wagons by John A. N. Emslie. These wagons were, of course, used by the L.N.E.R. after grouping, and painted in the standard L.N.E.R. livery ruling at the time in question.

All drawings 4mm. scale.

16-ton six-plank wagon, shown as "Loco Coal."



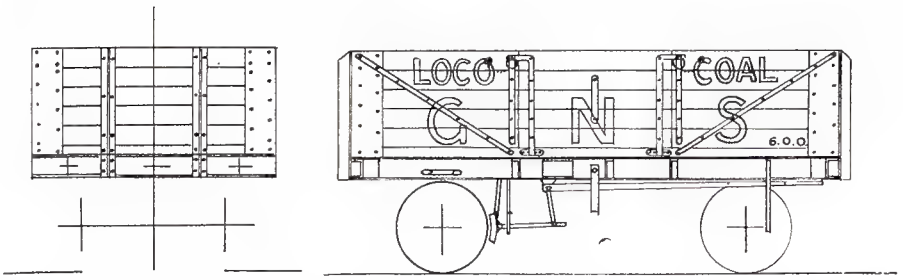
10-ton ballast wagon.

Below 10-ton five-plank wagon as "Loco Coal."

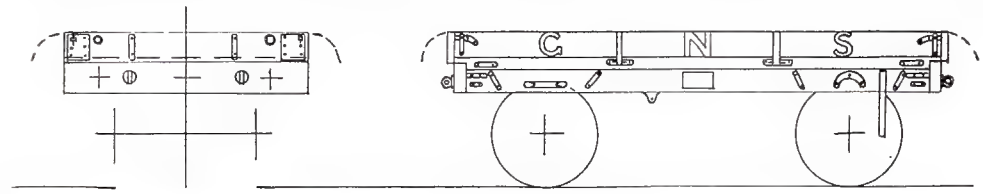
scale) the shapes of the various pieces of strapping and corner plates required (Fig. 13). Place the paper or card on a piece of soft wood and press each rivet head with an old centre-punch or similar blunt tool (a little experimenting will show how much pressure is required). When all the punching is done cut out the strips with a razor blade and steel rule. Each side must be dealt with separately and it should be remembered that since we are pressing through from the face instead of the reverse, each side will be found suitable for its opposite number. Fix the strapping, etc., in place with glue, adding such extra pieces of card as are necessary to give the effect of hinges, fastenings, etc. (Fig. 14). When all is in place a coat of shellac (shellac flakes mixed with methylated spirit) should be given to all the bodywork both inside and out. This will help to seal the glued joints against damp.

PAINTING AND LETTERING

Glossy paints should be avoided at all costs on goods wagons. Paint the insides and underframes a flat black or dark grey, the rest of the bodywork being finished according to the particular prototype. At this stage the door openings can be marked in with Indian ink. The final task of lettering is the one that so often spoils an otherwise good model. No matter how perfect the brake gear may be, if the lettering is poor it will avail nothing. The writer is no expert at lettering, but he has found the following method helpful in doing a reasonable job. First mark out on a piece of paper two lines representing the top and bottom of the lettering and then mark in roughly the various positions of the letters. It may be necessary to do this a few times until the letters are all correctly spaced (Fig. 15). Then finish the letters off in pencil or ink, using a ruler where possible, and cut the paper off at the bottom edge. Now rule two similar lines on the model and mark the position of each letter (Fig. 16), using the paper pattern as a guide. Take an ordinary mapping pen and a little water paint of the appropriate colour, filling the pen with a brush. It is best to use artists' colours such as are purchased in tubes, and not students' colours, as the former seem to have more body. Try the pen to see if the paint will flow; if it will not, then dip the tip of the nib in water and this will probably put things right. Remember that the paint will soon dry on the pen and make writing impossible; when it does so, clean the pen and start again. Take the pen and a set square, and first draw in the vertical lines all the way along, using the set square to see that all are at right angles to the wagon side; then add the diagonal lines and finally the horizontal ones. It will be found possible to mark out each side of each line of the lettering. Curved lines will have to be done freehand, marking in the outline with the mapping pen in the same way. If a mistake is made the paint can easily be washed off with water. When the outline is complete fill in the intervening space, using either the pen or a brush (the finest sable is best), and apply the paint freehand. Shading where used can be added with the mapping pen by drawing a contrasting line consistently on the right or left of the verticals and below the horizontals. Numbers and load signs should be treated in a similar manner and when all is dry a coat of *flat* drying varnish should be given.



I have spent rather a time describing the method of lettering because I feel it is so important. This is what is seen, and in a model I think that what is seen is what really matters. Thin sides and bottoms, neat strapping and good lettering are really far more important than perfect brake gear, and the resulting model will be satisfying to all but the over-critical eye.



Goods carriage wagon. Brake gear as for 10-ton ballast wagon.

THE "RAILWAY MODELLER" CUP COMPETITION 1956

WE are happy to announce that the 1956 RAILWAY MODELLER Cup was won by Cyril L. Fry for his series of articles on the "Irish International Railway and Tramway System." It is indeed pleasing to record that the award has gone to one of our longest standing contributors, for Mr. Fry had an article in the first RAILWAY MODELLER in 1949.

In accordance with his wishes, the cup has been awarded jointly to his wife and himself, and Mr. and Mrs. Fry wish to thank the readers who have shown appreciation of their efforts in this pleasing fashion.

The entries this year were an all-time record. Indeed, it has taken us longer than usual to analyse the results, and we should in our turn like to thank all readers who took part, as we find this annual competition a wonderful guide to the relative popularity of our features.

The actual placings were as follows:

1. "Irish International Railway and Tramway System," C. L. Fry.
2. "Tramway Modelling," P. D. Hancock.
3. "Ormistone," P. D. Hancock.
4. "Building the Tamar Valley Light Railway," P. B. Denny.
5. "Timetable Working on the Charford Branch," John Charman.
6. "King Farish," Ken Northwood.
7. "9.55 and All That," John L. Ray.
8. "Return to the West Country," A. S. Taylor.
9. "Torpoint Rebuilt," John Harrison.
10. "Pynter Wallop to Aylesgood," V. E. May.
11. "Fun with Figures," A. C. Wehrli and C. H. Millen.
12. "The North Lomond Railway," Keith Henderson.
13. "The Wright Lines," Alan Wright.
14. "Marden Valley Again," H. A. King.
15. "Brunel and Milne Junction," J. I. Pearse.

We have extended the list to fifteen places in view of the closeness of the placings. In actual fact, the positions of all but the two leading articles varied from day to day as the votes came in, and it would, we feel, be invidious to omit to give honourable mention to those who finished only a few marks behind.

TWO TRAINS

From our correspondence it is certain that problem number one facing beginners is the operation of two trains at once on one layout. This article describes the conditions under which this is possible.

TO run more than one train at once is the goal of the average beginner, even if at that time his first locomotive is as yet unpurchased. How to do it is another matter, and one which leads to a lot of puzzled brows, mostly because the approach is wrong.

There is a strong belief that some electrical gimmick is needed before two trains can be run at once. To a limited extent this is true, as by the twin system two trains can be under separate control in the same section, but this serves mainly to confuse the issue, for even if one can control two locomotives individually in the same section one is still limited to three possibilities—to run them in the same direction, to stop one and bring the other up to it, or to crash them. In point of fact the essential need for it to be possible to operate two trains at once is a layout so designed that operation can be carried out on separate sections without interference. This is not a limitation, for it follows exactly the golden rule of block signalling; only one train is permitted to move in each block section at once.

Let us therefore consider track formations that enable us to operate two trains at once. The plain oval is technically the simplest, but to do so it must be divided into block sections, each of which is appreciably longer than a train. Fig. 1 shows such a track, divided into four sections, this being the absolute minimum for safety, as from time to time each train will occupy two block sections. For convenience, six sections are better, allowing six feet for each section, though again this is keeping things as tight as possible, as one needs an overall length of run of between twenty-four and thirty-six feet to operate two trains at once on a single track. This limits the use to large layouts.

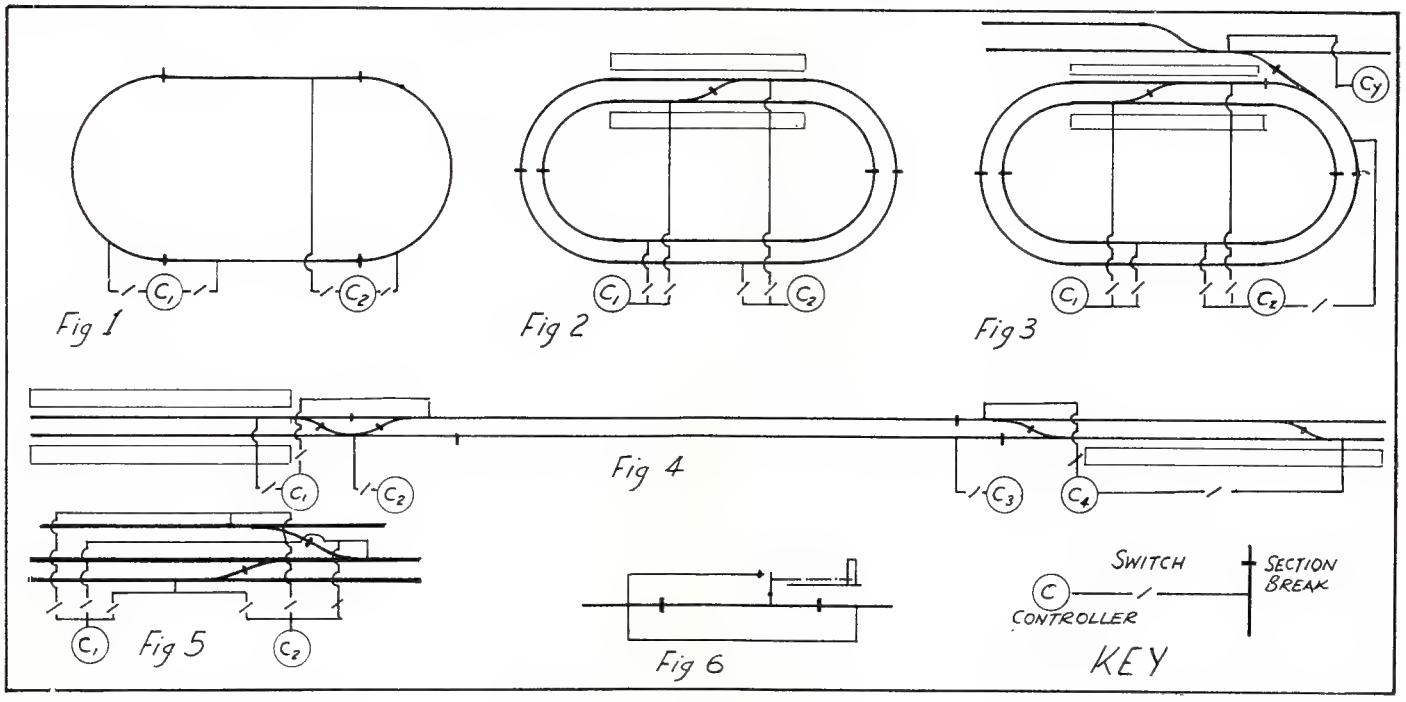
The simpler case occurs where two independent ovals exist, as for example in double track. While each section of a double track oval could be controlled directly from the one controller, it is advisable to split the oval into three separate sections, so that trains can be transferred from one track to the other. This is shown in Fig. 2. Fig. 3 shows a development where a goods yard with headshunt is provided, for shunting can take place here without fouling the main line, and therefore the yard can have its separate controller.

Fig. 4 shows another arrangement, where two termini face one another on a point-to-point layout. Controllers are mounted at each end, the trains being run from one end to the other by co-operation from the two operators, who can thus work a timetable between them.

These are the classic solutions using section control, which allows one controller to each block section. This, however, is quite extravagant, especially as in most cases half the controllers will be out of action at any one time; moreover, many movements require the use of several controllers at once, occasionally bringing a great deal of traffic to a halt. For this reason cab control has come into favour. In this the line is broken into blocks as previously, but each section is fed individually through a switch panel. Each controller has its own power unit (the popular modern combined units are ideal for this purpose) and its own switchboard, which feeds every section of the track. Normally the switches are off, but when the operator wishes to run a train he selects the sections through which he wishes to pass and closes the appropriate switches. Should one of the sections be selected by another controller the cut-outs of both units will come out, indicating that the section is blocked. In practice, experienced operators rarely make this error, particularly on timetable working. The principle of cab control with two cabs is shown in Fig. 5.

Although the number of trains that can potentially be run at once is determined by the track layout, in practice it is limited to the number of operators available, as once intensive working takes place trains must be driven carefully throughout their journeys, otherwise they can overrun their sections, with dire results. This, however, can be overcome by the addition of a short dead section at the entrance to each station, alongside the outer home signal. If this is kept normally "off," a train can be permitted to run up to the signal while shunting is going on in the station yard, for, unlike the prototype, we can stop our loco-

(*Continued on page 95*)



Craig boatbuilding yard from the roof of the narrow-gauge loco sheds.

CRAIG BOATBUILDING YARD

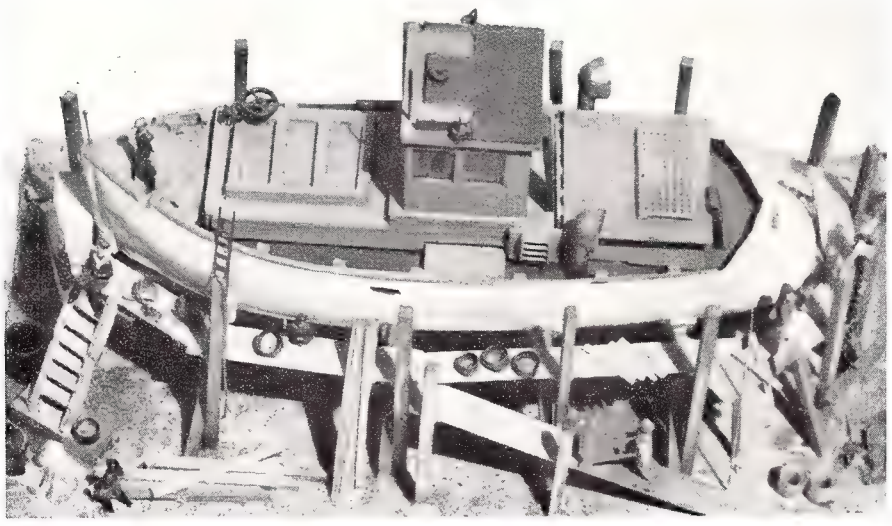
by P. D. Hancock

A survey of one of Craigshire's principal industries.

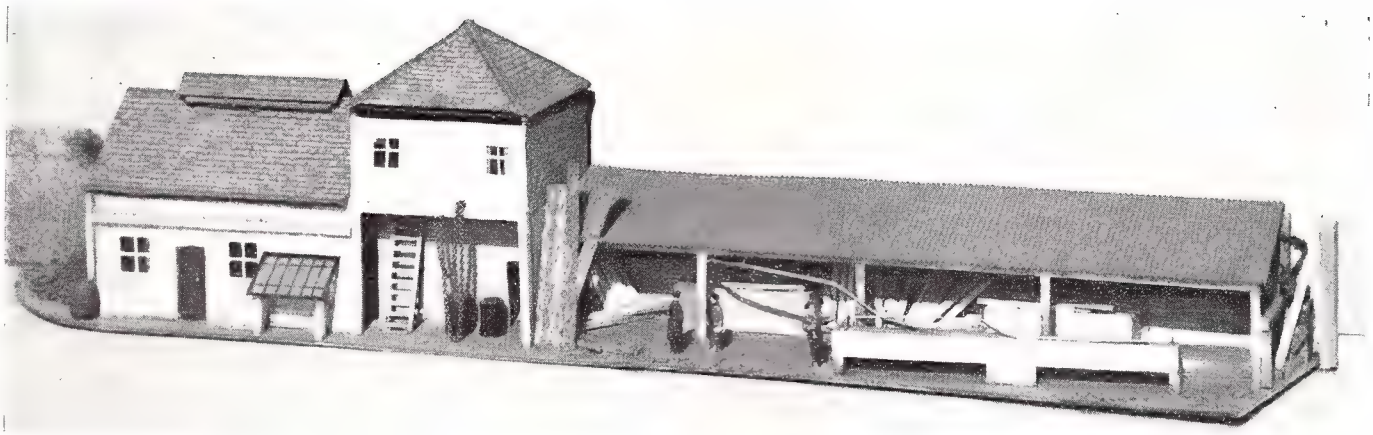
ONE of the "features" on my 4mm. scale Craig and Mertonford Light Railway is the boatbuilding yard at Craig. This yard has had a somewhat chequered career, and its various components have been rearranged on more than one occasion during the past five years.

As originally planned, the yard was square and much more extensive than it is now, but various additions and alterations to the C.M.R. trackage have resulted in its being more and more compressed, so that it now finds itself squeezed into a thin triangle between the railway and tramway lines on the one hand and between Craighill and the sea on the other. Indeed, if I am not careful, I may find that Craig Corporation has scheduled the site as a development area, and so, before it vanishes altogether, I felt that I had better make some sort of photographic record of its existence, and accordingly dispatched Alisdair MacAndrew (the "roving cameraman" of the *Craigshire Daily Advertiser and Gazette*) to do the needful. The photographs reproduced on these pages are the result.

The first photograph gives us a general view of the yard as seen from the roof of the C.M.R. locomotive shed, and a closer view of the boat under construction is given in photograph number two. Alisdair MacAndrew gives us no clue as to how this bird's-eye view was obtained, so we can only conclude that he climbed to the top of the tall lamp standard which illuminates the main part of the yard. The boat, incidentally, used to be a Tri-ang tugboat—and what is more, it used to work. The idea was to present it to a young cousin of mine, and it was accordingly fitted out with a Rev electrotor, a couple of pencil torch batteries, and even a combined rheostat control and reversing lever. The first sea trials (in the placid waters of the nearby bathtub) were satisfactory enough, though it emerged that the rheostat speed control was rather a wasted bit of effort, since the boat had only two speeds—dead slow and stop! However, second trials (in rough water) soon revealed a most sinister defect—the boat was top-heavy! As I stirred the water at the far end of the bath with the loofah, and



The tugboat under construction in Craig yards. The usual shipyard clutter is well brought out in this view. Note particularly how the hull is shored up.

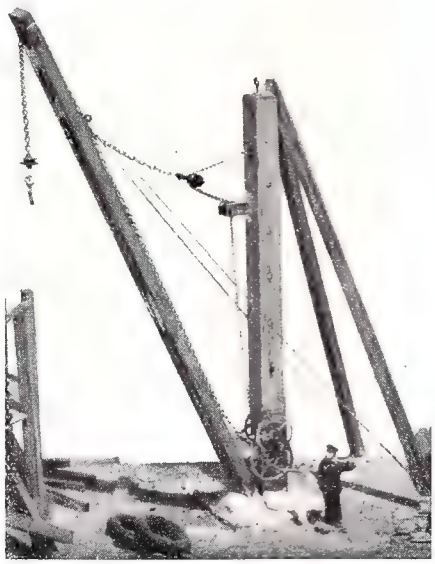


This is a scene that can be viewed only when the model is removed from the layout, for this exquisitely detailed portion of the boatbuilding yard faces away from the onlooker—a typical example of P. D. Hancock's meticulous approach to modelling.

the first gentle waves slapped against her side, she slowly heeled over and went under with a most delightful plop and a gurgle. This completely ruined the electrotor—and with it my cousin's chances of getting a boat for his birthday. Anyway, I salvaged her, removed her innards, and established her high and dry in the boatbuilding yard, where she has remained ever since.

Photograph number three is a view of the workshops as they appear from within the yard. The long box-like object in the foreground is the steam chest for bending planks to shape, and just out of sight under the corrugated iron roofing there is a circular saw which is contrived out of a small gear wheel from an old watch. This view of the workshops, by the way, is one which the average visitor to Craig never sees, since it faces towards the back of the layout. It seems a waste of good detail, and I have tried rearranging things so that the workshops are on the other side of the yard. But somehow this seems to spoil the general symmetry of things, and I have always ended up by putting it back as it was. Obviously it is just one of those things that cannot be helped.

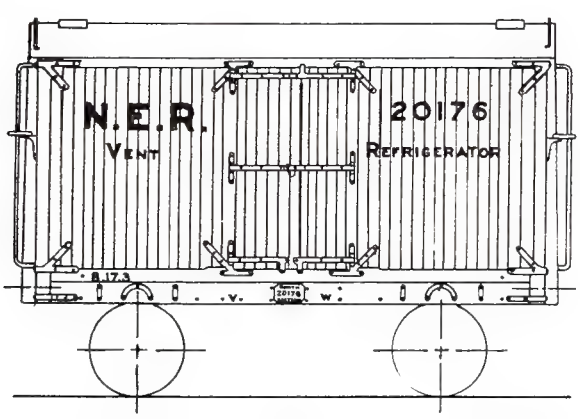
The fourth photograph is a close-up of the yard crane—a nice old-fashioned derrick made very simply from a few odd lengths of stripwood, some more watch gears, and various lengths of Woolworth jewellery chain which were purchased long before the present S. & B. 32-link-per-inch model chain became available. The chains were not painted, since this would have tended to clog up the links; instead they were brushed with iodine, which turned them first of all a dull grey, and then, within a few weeks, a nice matt black.

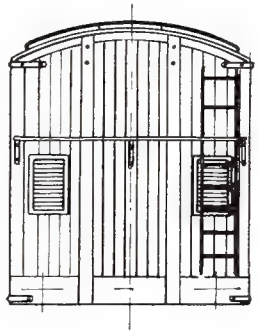


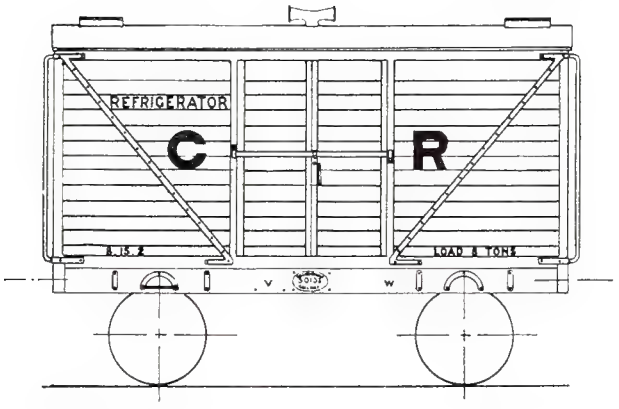
The scotch derrick at Craig boatbuilding yard—a simple model built of stripwood, miniature chain and clock-gears.

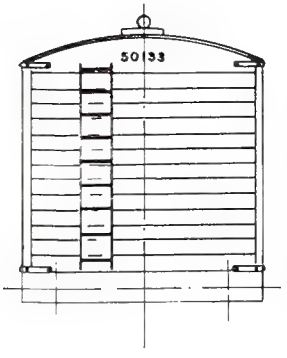
Finally, in photographs five and six we have front and rear views of some of the background buildings. These illustrate the fact that at Craig we do not normally bother about what the unseen backs of buildings look like as long as the fronts are all right! The general construction of these buildings is along typical Ahern lines, using various layers of Bristol board for the walls and strawboard for the roofs. All painting was done with Dane's matt poster oil paints, and a number of Slater's plastic doors have been pressed into service. I originally tried painting my own shop names and signs, but the results were not very satisfactory, so I began to collect suitable names and advertisements from any old magazines, papers or book dust-jackets which were being thrown out of the house, and now have quite a collection to choose from. As a matter of fact, the ownership of shops and business premises in Craig changes quite frequently, since many of the original names which I used were far from Scottish enough in flavour. The name " Grinsell " which could be seen at the entrance to the boatbuilding yard is no longer there—the name is now " Armstrong," and I am still keeping my eyes open for something better, like " McGregor " or " MacTavish " !

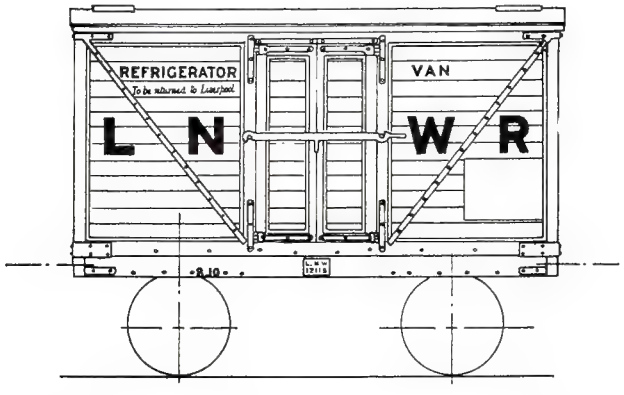
Low-relief buildings—front and rear. The simplicity of this style of modelling is well brought out in this picture.

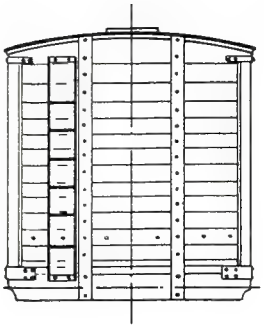


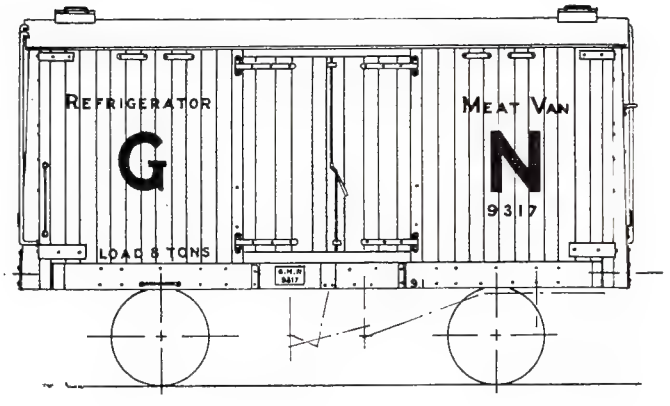


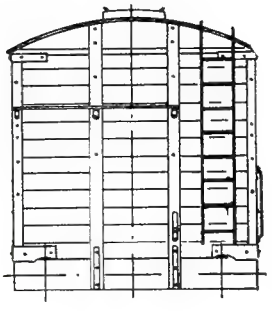












All drawings 4mm. scale.

FROM SIR ERIC'S NOTEBOOK

A selection of refrigerator vans.

NORTH EASTERN RAILWAY

These vans were fitted with spoked wheels, wagon-type axle boxes and screw couplings, and were vacuum and Westinghouse fitted. Some were steam-heating piped as well.

Painting: white roof, body and underframe; black writing, running gear and ladder.

CALEDONIAN RAILWAY

As was customary with other refrigerators, these vans had spoked wheels, wagon axleguards, vacuum and Westinghouse brakes and, therefore, screw couplings. Hand brakes were provided, the handle operating the inner shoe on the left-hand wheel. Note the very typical C.R. double ventilator.

Painting: roof and tyres, white; body and underframe, rather dark grey; all ironwork black; writing, primrose yellow. The vans were varnished. A run of numbers existed from 50120 to 50149.

LONDON AND NORTH-WESTERN RAILWAY

Provided with spoked wheels and wagon axleguards, screw couplings and vacuum and Westinghouse brakes.

Painting: white roof, body, underframe and tyres; writing, running gear, door bar and ladder black.

Many wagons were marked "To be returned" under "REFRIGERATOR" and "to Liverpool" under "VAN." Perhaps more commonly seen than vans lettered as in the drawing, both varieties are correct.

GREAT NORTHERN RAILWAY

This vehicle bears a close resemblance to the various other varieties of G.N. covered and ventilated vans. A point to notice is the brake gear, in which the shaft operated by the handle works on the main shaft actuated by the vacuum brake, so obtaining additional leverage. Westinghouse brakes were generally fitted, but if not the vans were piped for these brakes. Screw couplings, spoked wheels and wagon axleguards were standard.

Painting: roof, body, headstocks (including ends) and tyres, white; solebars, body ironwork and writing, chocolate brown; running gear, black.

Colouring details refer to pre-group conditions.

THE STORY OF TWO "BULLDOGS"

by A. S. Taylor

Drawings by Eric Longbottom

Being the detailed description of the construction of a super-detailed prize-winning pair of 4mm. scale models.

(*continued from page 55, March issue*)

WEIGHTING

Consideration had now to be given to the important question of adhesion, and I must confess that after all these months of work we were a little apprehensive at the thoughts of immersing this shell in a surround of cold water and pouring in molten lead. Fortunately there was an alternative to this rather drastic process; an alloy called Cerrobend. This is slightly lighter than lead, but has the great advantage of melting at boiling water temperature. It can, in consequence, be poured on to soldered joints with impunity, and should too much metal have been inserted a warm soldering iron may be used to "spread the load." If matters have gone too far, however, the whole body may be placed in a bowl of boiling water and the Cerrobend melted out again without detriment to the model.

Pouring molten metal into a specified position is never an easy task, and Eric hit upon the idea of using an old "Ronsonol" lighter fuel bottle as a pourer and container, retaining the screw-top lid and glass spout. The Cerrobend was cut into small pieces and fed into the bottom of the bottle. The latter was then placed in a saucepan of warm water and the water brought gently to the boil. The cap and filler were now replaced on the bottle, and the metal was poured as and where required in a thin molten stream. It kept in a liquid state for a reasonably long period, but whenever necessity arose the bottle was merely returned to the saucepan for reheating.

Cerrobend is, I am afraid, a little on the expensive side, the price at the present time being somewhere in the region of £1 per pound weight. It can be obtained from Power Tools (B'ham) Ltd., Henley Street, Birmingham, 11, and no doubt from other sources too. A pound goes a long way in "OO" gauge, however, and the result is well worth the expenditure involved.

Wherever it was possible to cast or shape lead to fit, we employed this, soldering into position, as for example on the inside of the two deep sideframes.

CLEANING UP

It is, perhaps, somewhat trite to say that the cleaner the work the better the final result. None the less, I feel that it bears emphasis, particularly when, as in our case, a spray finish is contemplated. For this operation we employed a variety of small scrapers. They were quite simply made by grinding old needle files to the shapes shown, afterwards finishing the edges on an oilstone. When grinding these

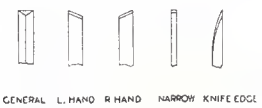


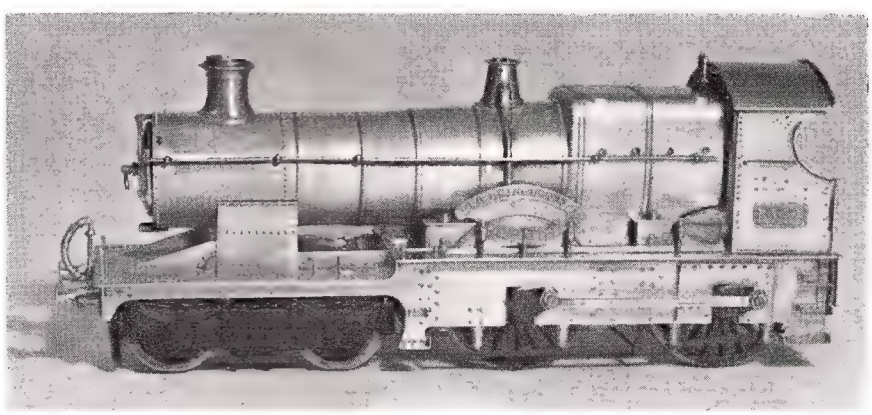
Fig. 30. Scrapers.

files, owing to their tiny bulk, they quickly overheat, and in consequence they should frequently be dipped in a jar of water to prevent loss of temper. Once ground and set, an occasional touch on the oilstone will keep them in trim, and they are absolutely invaluable for working into awkward corners and will pare off excess solder with ease and certainty.

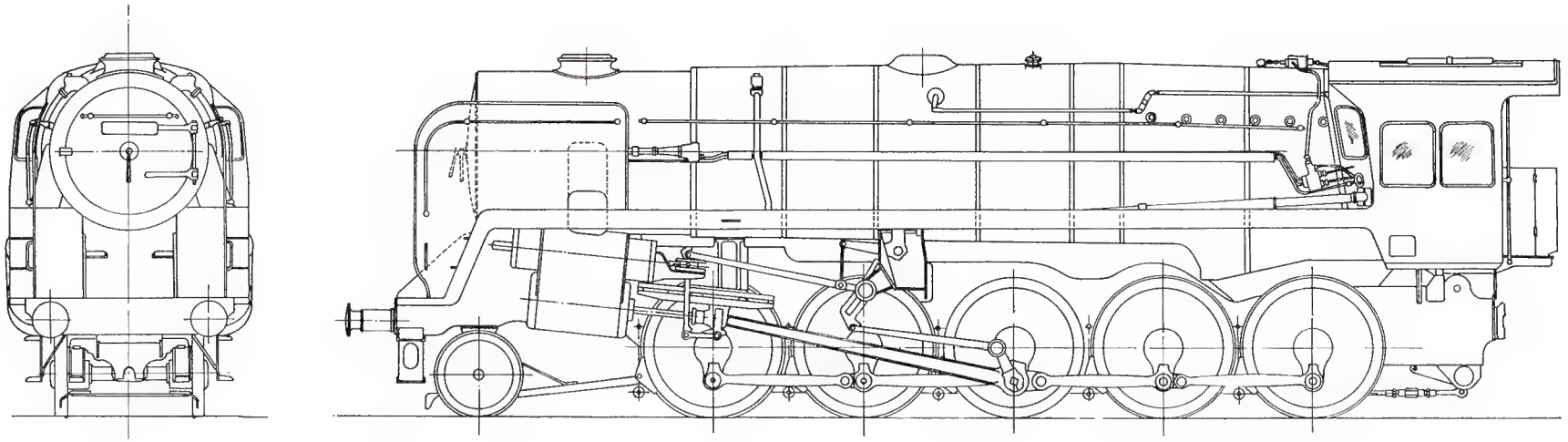
The maxim here is to clean up each unit as work proceeds. If this task is left until assembly is complete, or nearly so, not only does access become more difficult but the fatal tendency to skip this vital stage is greatly enhanced.

The scraping process was followed by emery-papering, the task finally being finished off with a soft brass-wire suede shoe cleaner. Mine was obtained at Woolworths for the modest outlay of 9d. Brushing the model with one of these cleaners very largely erases the emery marks, and has a most advantageous and freshening effect on the work. Contrary to expectation, it burnishes rather than scratches, and can safely be used on boiler mountings, handrails and other details. From a personal point of view, it is a "must" in the tool kit. Having then run the gamut of scraping, emery-papering and brushing, the components were scrubbed off in warm water to which "Tide" had been added. An old toothbrush is very useful for this purpose, and our method is to wet the brush, rub it on a piece of kitchen soap, e.g. "Sunlight," and then dip it into a jar of pumice powder. The resultant mixture is then rubbed well all over the work, subsequently being rinsed off in clean water and dried. The addition of "Tide" is particularly valuable, since it destroys the corrosive effect of Baker's fluid.

Next month : the tender.



The completed locomotive, before painting.

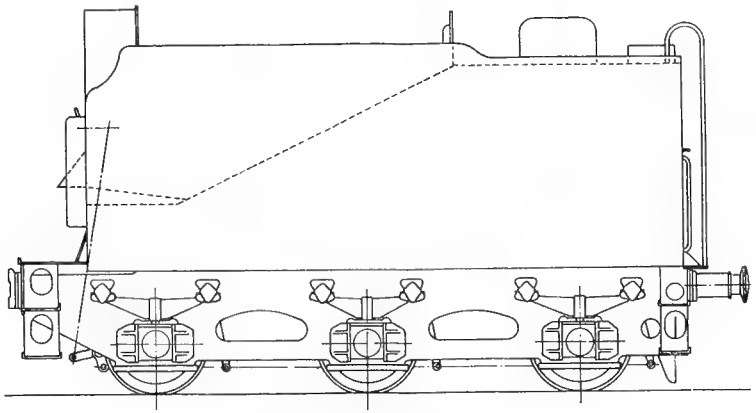


BRITISH RAILWAYS STANDARD 2-10-0s

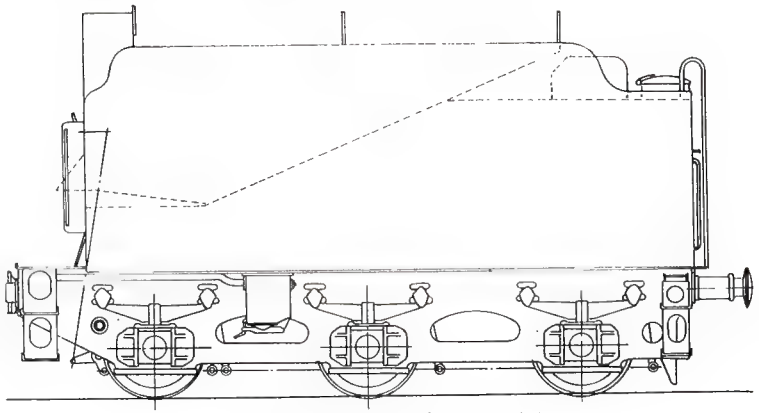
Above : standard boiler.

Below : Franco-Crosti boiler.

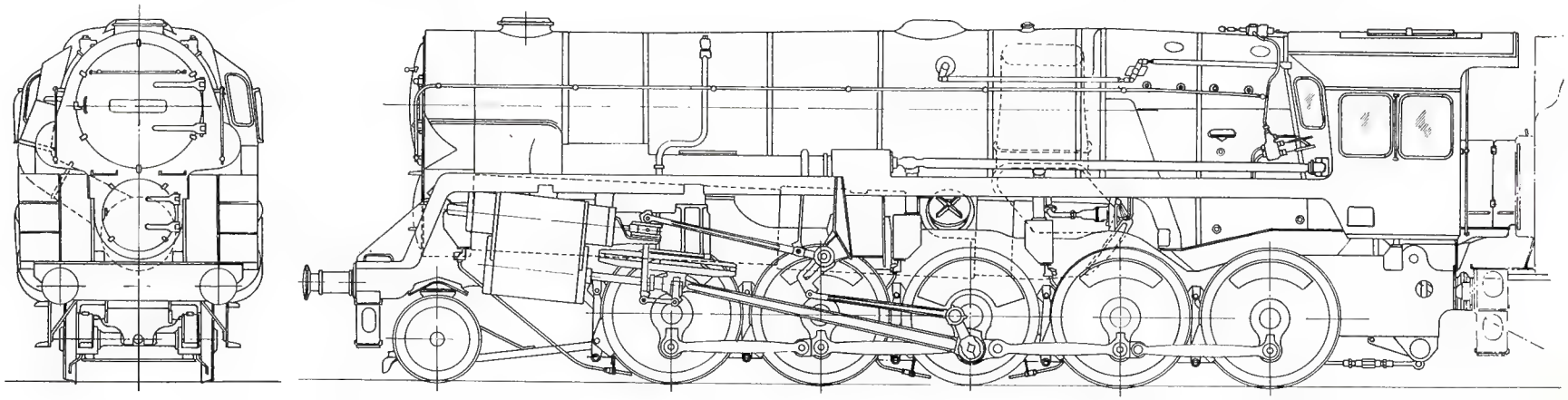
Scale : 4mm.



Tender for standard 2-10-0.

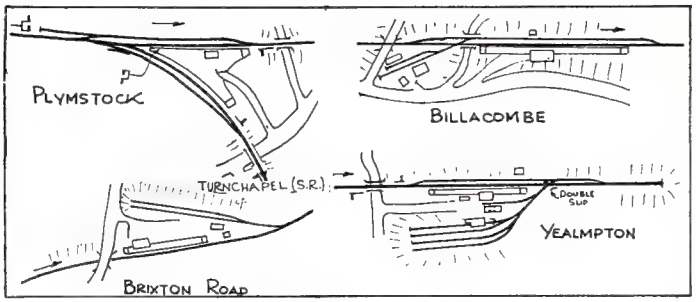


Tender for Franco-Crosti 2-10-0.



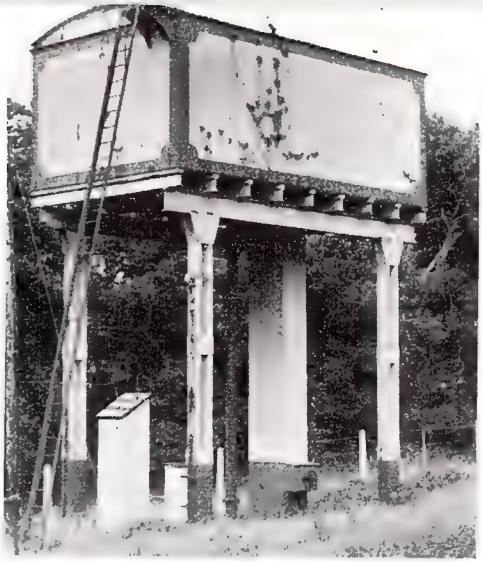
Prototype of the Month

THE YEALMPTON BRANCH



Western Region, 6½ miles east of Plymouth.

Photos by E. T. Day.



Water tank, Yealmpton.

Top left : Billacombe goods shed. Top right : Billacombe goods office. Centre left : Billacombe station building. Centre right : Yealmpton station building. Bottom : two views of Yealmpton goods shed.

Minories

A Suburban Terminus in "3-D"

FOR years we have assumed that where space is restricted, and the layout must be small, the country branch offers the greatest approach to prototype practice, an assumption which is all very well if you like small tanks, two-coach trains and at least a suggestion of rolling hills on the backcloth.

However, the assumption has one basic imperfection. The average country branch does not have compact stations; for land is cheap, and even though the goods yard may be but a single siding it is surrounded by enough land to make a fair-sized marshalling yard. When we have little space to spare we must perforce use compact layouts, and these are usually to be found in two types of location: where considerable excavation or levelling up has had to take place, or where land is expensive—with the obvious conclusion that the most compact layouts of all come where low-level lines are built in big cities.

Our plan this month is for just such a station. It is contained on two folding baseboards, measuring 6ft. 6in. overall in "OO" and 5ft. 0in. in "TT-3." Two variants of the basic scheme are shown, the upper one, the basic conception, making no provision for goods workings whatsoever, and the lower one providing a small warehouse with two tracks. No run-rounds are provided, for most trains would be tank-engine hauled, a spare engine being held on the loco road between trains. This engine would, in the case of the second layout, wait at the end of the headshunt to tackle the goods train, which naturally arrives during the morning, afternoon or evening lulls in the timetable.

It would be possible to use tender locomotives on the layout, provided some means of handling them "off stage" were provided, either in the hidden sidings or by means of a reversing loop. Having arrived at the head of the express, the tender loco is trapped until the shunter takes the train away, in imagination to the carriage sidings farther down the line. The tender loco then follows light engine, in imagination to the depot for coal, water, cleaning fires and turning, rejoining its train after the shunter has brought it back. In practice this would probably mean that they have both followed each other round the reverse loop!

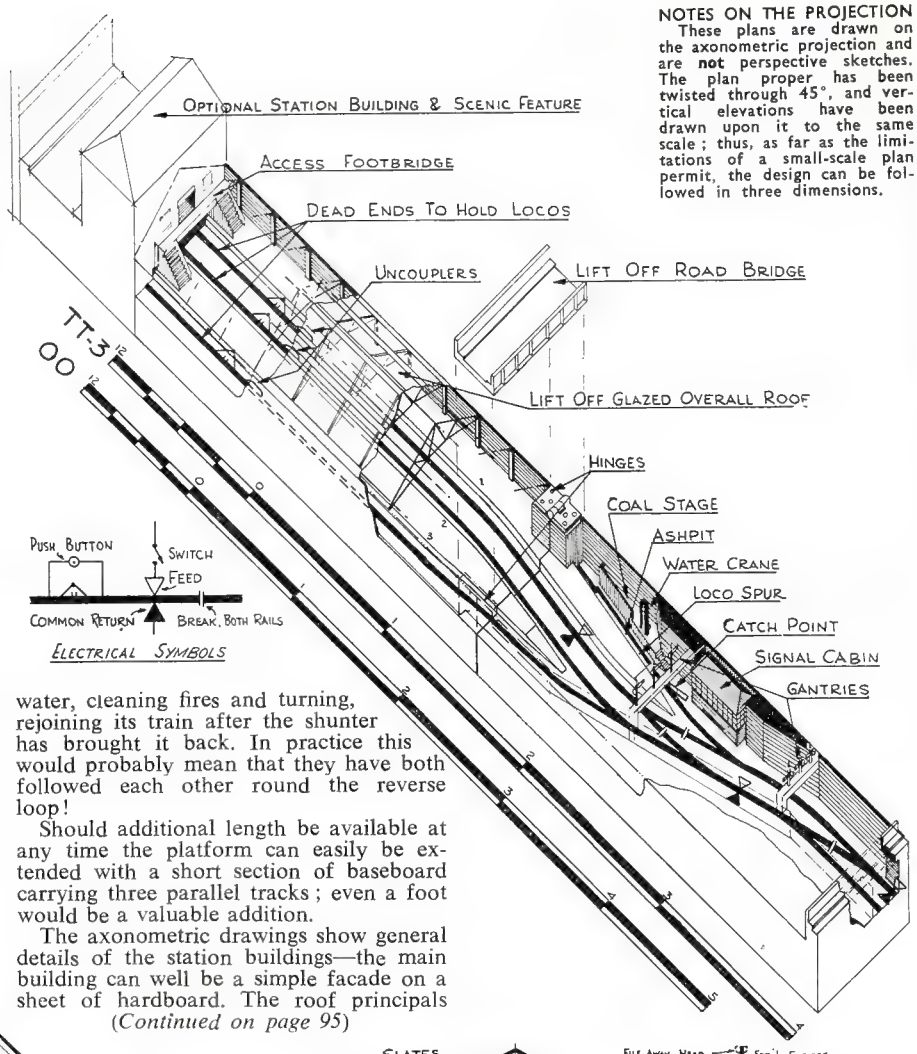
Should additional length be available at any time the platform can easily be extended with a short section of baseboard carrying three parallel tracks; even a foot would be a valuable addition.

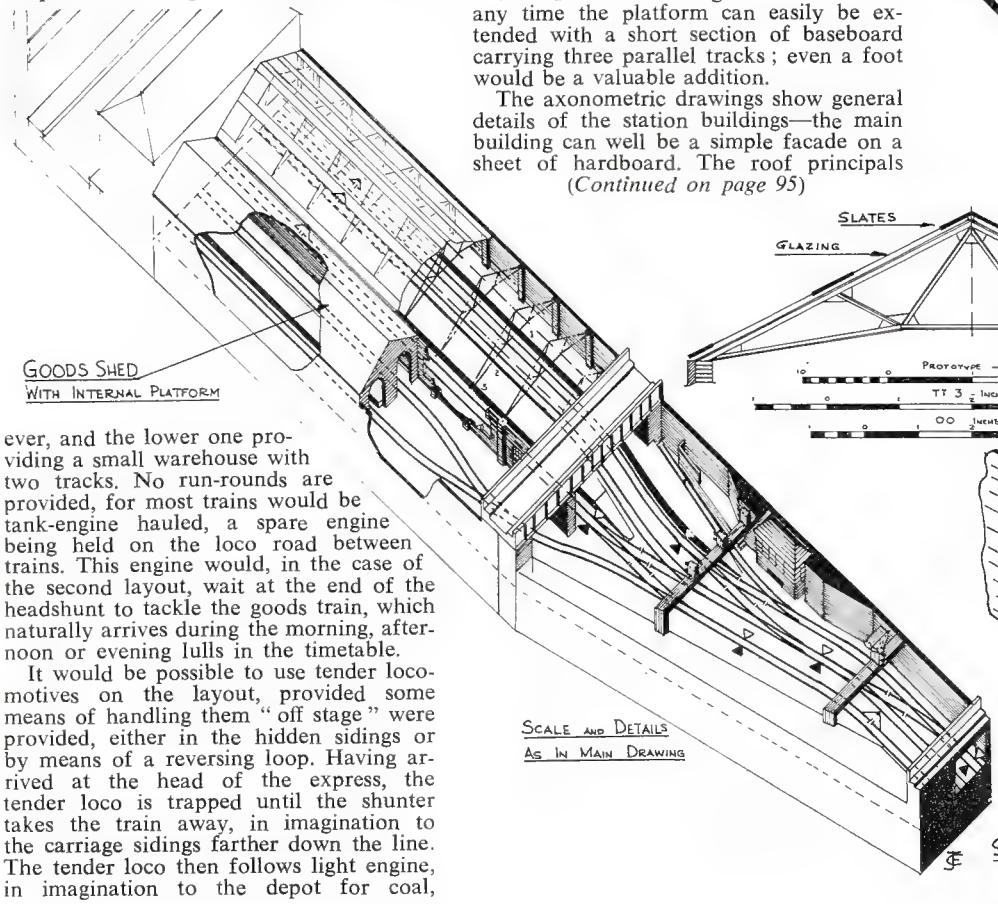
The axonometric drawings show general details of the station buildings—the main building can well be a simple facade on a sheet of hardboard. The roof principals

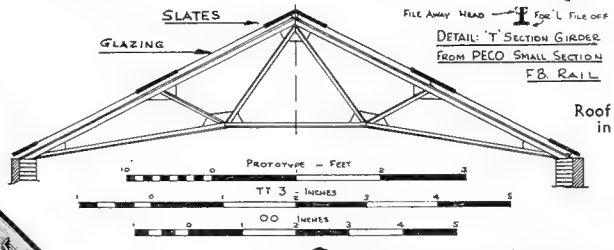
(*Continued on page 95*)

NOTES ON THE PROJECTION

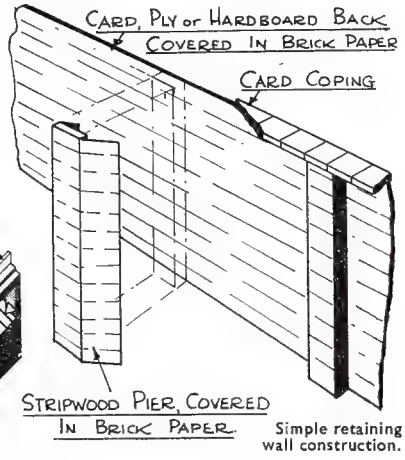
These plans are drawn on the axonometric projection and are **not** perspective sketches. The plan proper has been twisted through 45°, and vertical elevations have been drawn upon it to the same scale; thus, as far as the limitations of a small-scale plan permit, the design can be followed in three dimensions.







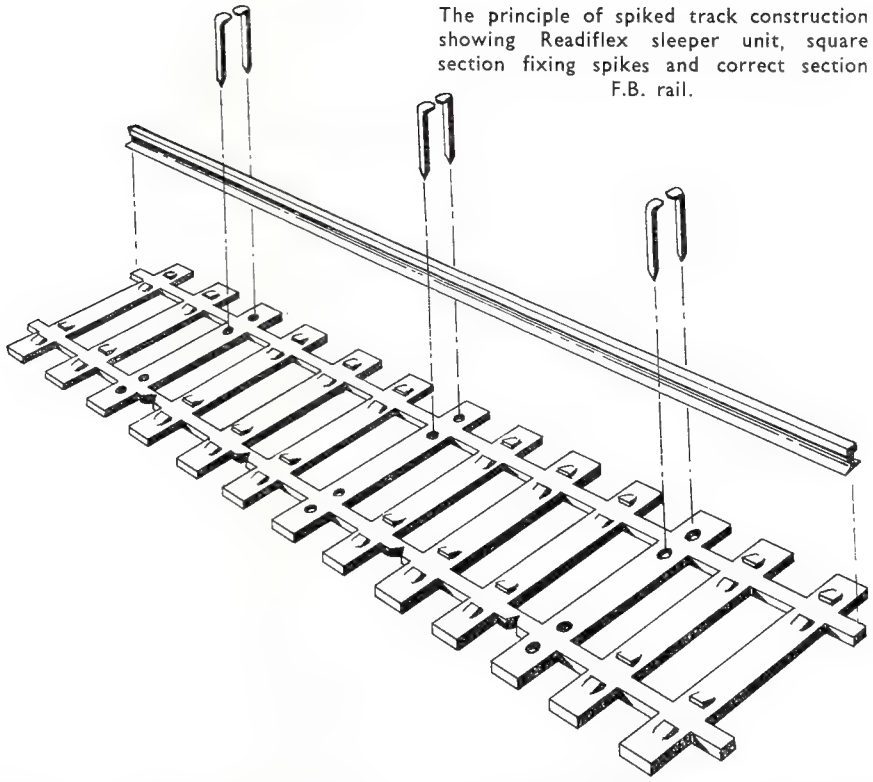
Roof principals in elevation.



Simple retaining wall construction.

PECO TOPICS

SPIKED TRACK SURVEY



The principle of spiked track construction showing Readiflex sleeper unit, square section fixing spikes and correct section F.B. rail.

NOW that there are no less than three sizes of Peco Spiked Track packs available, to say nothing of the individual parts supplied for special point and other non-standard construction, the modeller has a clear choice of the type of track he needs to build his layout. Naturally each of the three main types has its particular niche, and we propose therefore to deal with this in the present article.

"OO"/"HO" PROTOTYPE

This size is especially produced to cater for the exacting modeller, and is available in two-rail versions only, for use with rolling stock fitted with B.R.M.S.B. or N.M.R.A. standard wheels. It is available with the true scale F.B. rail in nickel silver or steel correct section, both being identical in overall dimensions. We are often asked the advantages of the two materials, and which is "best." In actual fact, both are good, but the general opinion of experienced modellers is that nickel silver, though more in first cost, gives better contact and needs less cleaning. Naturally, where there is any undue dampness, nickel silver, which cannot rust, should always be used, though we should like to point out that in conditions of this nature it is not only the track that will suffer!

In common with all types of Peco Spiked Track packs, the "OO"/"HO" Prototype track is based on a Readiflex sleeper unit, which consists of a 4½in. length of punched tied sleeper strip, embossed with dummy spikes except on the three sleepers which are pierced to take the metal fixing spikes. The ties between the sleepers are notched on one side so that the fibre base can be easily snapped to run smoothly around curves. Assembly is simple, for once the softboard base has been prepared by gluing down ballast underlays the Readiflex units are laid on top and the rails dropped in position and spiked down, the spikes being pushed into the baseboard with a small pair of pliers.

The "OO"/"HO" Prototype Readiflex sleeper unit has true scale sleepers at exact scale spacing to match the true scale F.B. rail employed.

The 36in.-radius prototype points are supplied with a pre-punched base and a complete set of machined rails, including a hard Mazak die-cast frog. This frog, incidentally, cannot be soldered, but as no soldering is necessary with any of the new Peco tracks, except for electrical connections, this is no disadvantage. The point blades are provided with a special tag which fits into the centre hole in the tie-bars, and is bent over to fix. Assembly of the points is quite a simple matter, and once a degree of proficiency is achieved the time involved is very short.

"OO" UNIVERSAL

This type of track again employs a Readiflex sleeper unit and point sleeper base, but, as HI section universal steel rail is employed throughout, the sleepers have been slightly increased in size and spacing to counteract the slightly overscale effect of the heavier correct section F.B. rail.

The assembly of the track follows exactly the same lines as before, but the point, being universal, has no fixed wing rails. Instead the point blades are pivoted in the centre and close against the frog, thus presenting a continuous path throughout. In this way wheels of any standard to 16.5mm. gauge will run happily over the points. The central pivot is made by a pair of spikes, which, due to their length and square section, grip the baseboard firmly. The points are 20in. radius, and will thus take any standard rolling stock without difficulty. The track is available in two- or three-rail versions.

"TT-3" UNIVERSAL

The general design of "TT-3" Universal track follows the lines of the "OO" Universal, except that the dimensions are correspondingly smaller in proportion. The track is available with steel or nickel silver F.B. rail, and is HI section for "TT-3" gauge, though in point of fact it is a true scale section. Assembly and general details are exactly the same as for the "OO" tracks.

This track is also suitable for "OOn3" narrow gauge lines, and produces a remarkably realistic effect.

ACCESSORIES

In addition to the basic track and point packs, ballast underlays, ballast slopes (which are used to connect with proprietary tracks or to form the start of gradients—always a difficult piece of carpentry for the amateur), rail joiners, point levers and track gauges are obtainable. Special adaptor rails are produced for use with the "OO" proprietary tracks, while the "OO" systems can be used in conjunction with the corresponding Pecoway range of tracks.

Special points of non-standard radii and crossings can be made from rail and sleeper strip, the rails being cut and filed to suit. An instructional leaflet, price 3d., is obtainable for "OO" gauge, giving full-size plans. However, before attempting hand-built points, the beginner is advised to construct a selection of kits to see for himself exactly what is involved.

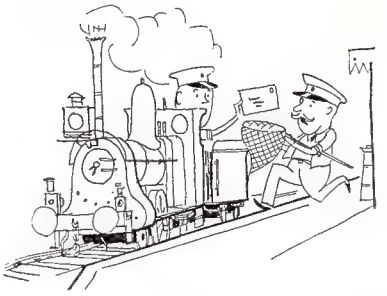
BASEBOARDS

We have left until last the most important point of all, the baseboard. This is the foundation on which the entire layout is built, and economy here is undoubtedly false; for once the tracklaying has begun, any alterations necessitate the virtual destruction of all that has been done.

The best material for baseboard surfaces is ½in. insulation board, obtainable from builders' merchants in large sheets from approximately 6d. per square foot. It is thus one of the cheapest materials into the bargain. The softboard should, how-

(*Continued on page 95*)

READERS' LETTERS



A free-for-all forum of ideas and opinion.

OUTDOOR "OO"

For my "OO" gauge model railway, housed in a shed in the garden, running space has so far been a problem I have shelved in desperation. There *has* to be running space, for the entire shed is filled with a scenic village and a through station. I knew that I should have to face the garden in time, but quailed at the imagined difficulties.

I was especially interested, therefore, in Mr. White's description of his experiments at Cheam in "OO" outdoors, and lost no time in getting into touch with him. After a morning's demonstrations I can say that he has brought "OO" gauge outdoors into a state in which realistic running is taken as a matter of course. I must admit that the sun was shining with positive abandon, and there was no sign of the rain he so confidently forecast. However, having spread a little of the "jelly" in one spot, he proceeded to broadcast the contents of the watering can very indiscriminately over track, baseboard, locos and stock, while I stood and held my breath! Nothing seemed to slow down or be in any way affected, although I must admit a G.W. "King" with a bow wave has to be seen to be believed! The only criticism I could make concerned the size of the "raindrops" on the coach roofs!

Having seen Mr. White's railway in operation, and observed his method, I feel quite confident in starting on the 200-odd feet of outdoor track I have wanted. He's certainly got something!

Old Coulsdon. N. F. PELLS.

DOWN WITH PURISTS!

As a new reader of the RAILWAY MODELLER, but a proud owner of a 15ft. x 6ft. scale railway, I fail to understand why several of your readers in their letters and articles make that self-apologetic statement "It might not appeal to a purist," etc. Now my layout is, where possible, to scale, but it has many features that are "off the record" so to speak, and it is those very features which make it *my* railway, the demonstration of *my* capabilities and enthusiasms; and the endless fun and interest afforded to myself and others by their inclusion is not regretted. This is a unique portable, trestle-type job, constructed against the sorrowful wailings of "purists," and it is a roaring success. To be a "last nut and bolt" enthusiast requires time, money and opportunity if one is to achieve anything sizeable and interesting, and I am sure that the "average enthusiast" is restricted in all three of the aforesaid desirables. He does the best he can. It we all go in for dead-pan imagery and "just so" practices, variety and enjoyment are killed by monotony and a never-satisfied hunt after an unattainable perfection. I know—I've had some. Why go to extremes where perhaps we would be happier with less? We might as well go and sit on the nearest railway station and see all the realism, all the type, line and system, till we are bored to tears with the hourly repetition. So to all those who seem to utter inferiority sentiments I say get going on what's *yours* and enjoy it. As a friend, a professional photographer, confided once to me, "It's not the 'expert' or the 'Johnny-oh-so-precise' who make the business or the pleasure, it's the thousands of enthusiastic 'in-betweens' and 'trying' types who keep it alive." I guess that applies to us, too.

Mitcham. F. C. BERESFORD.

SNAPE BRANCH

Once again the pleasure of the first glance through the new RAILWAY MODELLER has been increased for me by finding there pictures of familiar but far-away places. The Snape Branch is well adapted to the basis of a model, not only by reason of its simplicity but also because it is *normal* practice to propel down trains, shunt the sidings and return engine first. I recently travelled on the "Suffolk Venturer" special excursion, the first passenger train ever known to have used the line, and on this occasion we were propelled back to the junction.

The small quay was in fact very busy in its day, and old photographs recently brought to light by the Suffolk Local History Council show several small sailing vessels and some delightful little steamers, all small enough to admit of modelling complete, or of inclusion in the back-scene. Imports were barley and coal for the maltings and general cargo for the "hinterland" as well.

I am informed locally that the branch was built before the main line and much of the material for building the main line was landed at Snape and passed over the branch from a quay on the left bank above the road bridge where the branch then terminated. The extension over the present rail bridge into the maltings was added when completion of the main line made it desirable.

A small exhibition was held at Snape on Boxing Day under the auspices of the above Council, where several useful pictures of the quay and railway were on view, and it occurs to me that liaison with the county Local History Councils might prove a profitable source of information for those wishing to build authentic period models, although it is believed that they are not as active in all counties as in Suffolk.

W. MICHAEL SALMON.

Llandrindod Wells.

WAGON TURNTABLES

I have noted that in layout plans appearing in the RAILWAY MODELLER very little use is made of the wagon turntable. This interesting piece of equipment is both a space- and money-saver, and I am incorporating several in my own layout, where both space and cost are deciding factors.

Although a great number of prototype stations do not have one, there are many examples of wagon turntables to be seen, especially on narrow-gauge railways. Also they often provide access to places of importance on standard-gauge railways, for example the goods shed, as at Harlow, Essex. At Sudbury, Suffolk, an interesting method is by a wagon turntable. This is the use of a mechanical horse attached to wagons one by one by means of a cable. It also pulls the wagon round on the turntable and pushes it off when turned.

Saffron Walden. P. E. SOUTHGATE.

COAL!

Until recently my Dublo layout has been short of coal, although my tankers and "Duchess" tenders have got plenty and never seem to use it up. I have often taken pity on the local coal merchant's lorry that has been standing in the coal sidings for months without even a cinder being delivered.

The answer to my problem, and his, came when I was sorting bits and pieces in the attic. Finding the family gas masks, I considered throwing them out, thinking them to be of no further use in these days of the "H" bomb. Being an inquisitive person, however, I wanted to see what was inside those little black canisters through which the gas-free (?) air (thank goodness we never had to prove it in practice) reached the lungs.

Removing the lower canister which was taped on to the original, I proceeded to open it up (wife's tin-opener), and there to my joy was the answer to the coal shortage, tons and tons of coal—in "OO" gauge of course.

The "coal" looks very realistic when placed in open wagons, coaling stages, etc. I hope the idea will improve fellow enthusiasts' layouts, provided that they still have gas masks lying about. My local coal merchant now has plenty of coal, but it seems he has lost custom, as he is a bit slow in taking delivery!

Dovercourt. W. WILLIAMS.

WEST SOMERSET MINERAL

Anent correspondence in your columns, may a narrow-gauge fan add a note? True, it is an excellent modelling subject, but Mr. Roche's letter with reference to wagons is misleading (March issue). The wagons concerned are of the drop-side variety and are painted a light yellow, I feel. The lettering is B.C.W.W., which even to my north-country habitat means "Bristol Corporation Water Works"; presumably they had been used in the Blagdon reservoir contract (from which the lovely little Wrington Vale Light Railway sprang), which no longer required them. The wagon of which I have a note is numbered 11 and has dumb buffers (Mr. Roche says "mustard"; it would depend on the age of the paint).

I fear Mr. Roche has erred in his last two paragraphs, which are quite wrong—he is describing the West Somerset Railway and has confused it with the West Somerset *Mineral* Railway. The true facts are that the mineral line was built and owned by the Brendon Hills Iron Ore Co., and opened on September 28, 1859, purely for the carriage of iron ore to Watchet harbour. Much of this went to South Wales, I understand. Then it was taken over by the Ebbw Vale Steel, Iron and Coal Co. in 1864 to supply that company's own needs and opened for passengers on September 4, 1865. The whole system closed on November 7, 1898, and an account of the line, which had a short while back closed at least to passengers, can be found in the *Railway Magazine*, Volume VII, page 111.

There were four four-wheeled coaches, one of which survived until the mineral reopening on July 4, 1907, by Somerset Mineral Syndicate. This failed and the line closed again in 1909, being used for the last time in 1911 by A. R. Angus Ltd. in connection with their patent brake scheme.

Originally passenger trains ran to Coombe Row only, whence there was a double-acting rope-worked balance incline which passengers used at their own risk.

The original loco stock included two delightful Sharp Stewart "long-boiler" 0-6-0 saddle tanks (of which only that made by Mr. Jarvis comes to my mind in model form). There was only one ex-Metro 4-4-0T when reopened in 1907, and the surviving coach, which was not used. The original loco stud belonged to the Ebbw Vale Co. and returned to them at the 1898 closing.

The track was flat-bottomed, but had light chairs in addition; it was very overgrown according to the 1898 account. There is considerable scope for modelling, including a harbour, the proximity of the Great Western Minehead branch, disc-and-crossbar signals and the incline. Also there was a two-foot-gauge mineral line worked by steam locos from a point near the incline summit.

These notes are sent by one who is anything but knowledgeable on the subject, purely with the idea of correcting the mistaken approach made by Mr. Roche.

Sale. J. I. C. BOYD.

I feel that some further comment is required on the remarks concerning the West Somerset Mineral Railway made by Mr. Roche in your March issue.

From two sources (*Kidner's Light Railway Handbook* and *Railways* before that magazine was renamed the *Railway World*) there would appear to be little doubt that the West Somerset Mineral Railway was standard gauge throughout its career. Its original locomotives were four 0-6-0 saddle tanks used below the Brendon incline and one, possibly two, 0-4-0 saddle tanks for use above the Brendon incline. The incline was cable-worked and its earthworks remain in the Brendon hills to this day. Two of the 0-6-0 saddle tanks were of the long-boiler type and one of them was named "Pontypool." On the first closure of the line at least one of the 0-6-0s was sold into industrial service in South Wales. Original coaches were four-wheeled, but at the end of the line's first period only one of them remained in a serviceable condition.

When the line reopened in 1907 under the auspices of the West Somerset Mineral Syndicate a 4-4-0 Beyer Peacock Metropolitan tank was worked to the line over the tracks of the Great Western Railway, on which journey it is reputed to have taken a "rake-off" of platform edges to such an extent that on the final closure of the line the Great Western refused to accept the engine for transit again, and it was taken away by sea.

Part of the route of the West Somerset Mineral Railway was used for braking trials for a short period. A Great Western 2-4-0 tender engine provided the motive power for these trials.

J. L. FAREHAM.

Hadleigh, near Ipswich.

A PLEA TO ADVERTISERS

Adverting to Mr. J. Harrison's letter in the January issue of your magazine, the reason why the advertisements for my company are not as specific as he would like them is that they are advertisements and not catalogues. As to his suggestion that every time a reader wishes to buy a coach he has to buy a catalogue, this is not correct. The catalogue lists all coaches and there is no need to destroy it once he has paid for it.

Referring to the second paragraph of his letter, there are Exley dealers within the city of Bristol, and he should be able to obtain such coaches as he desires without difficulty.

As to his final paragraph, again he could, I think, find anything of this nature by perusing the catalogue of the manufacturers in question.

V. BOYD CARPENTER.

TWO TRAINS

(*Continued from page 85*)

motives in their own length. Thus a short controlled section, as shown in Fig. 6, will give absolute protection to a station without using relays or other complex apparatus, and will permit more intensive operation, particularly when timetable working is favoured.

Two-rail stations are broken into blocks of convenient size by the normal wiring arrangements, but it is frequently convenient to break the larger sections for operating purposes. The simplest way of doing this is to signal the layout, for section breaks must come where a home or starter signal controls the entry into the next block.

MINORIES

(*Continued from page 92*)

are shown in greater detail, and can be built up from Peco conductor rail, an inset sketch showing how this section can be filed to form T and L sections for the more meticulous modellers. It is, however, sufficient for most purposes to use the standard rail and omit the gussets on all but the end principal. As retaining walls figure largely in the model, a simple and quick method of construction is shown, though a more elaborate arrangement of arches and heavy buttresses would be even more effective if one were prepared to take the extra time and trouble involved.

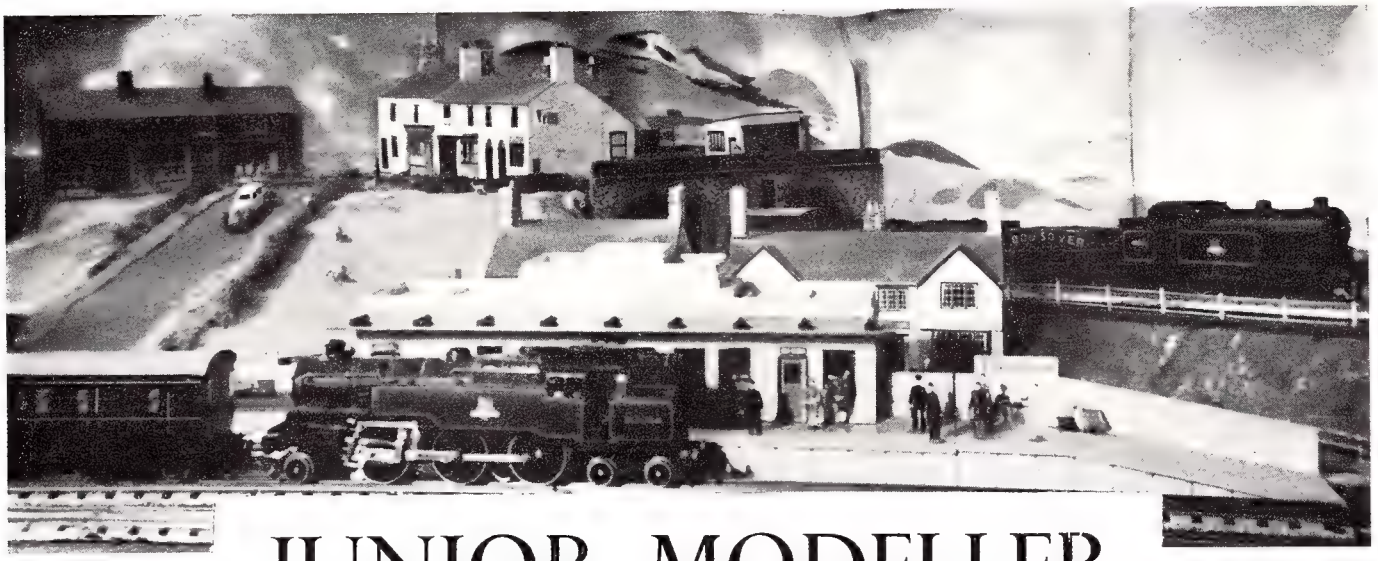
PECO TOPICS

(*Continued from page 93*)

ever, be well braced, and for this purpose there is nothing better than a stout wooden frame of 2in. x 1in. timber, cross braced at approximately 1ft. intervals. Do not be tempted to cut down on the timber, or else the baseboard will only sag, leading to poor running. We have recently examined a series of such baseboards built by a leading club, which, lacking sufficient cross bracing, have eventually warped, necessitating complete renewal, a task greater than the original construction.

It is advisable to construct the baseboards in a series of sections rather than in one large unit. The ideal maximum is 4ft. long, this being a standard board width, and the widths should not exceed two feet for comfort. A baseboard of these dimensions can be readily moved about the house by a single person without risk of damage to railway, house or porter, while storage of several small units is generally easier than that of one large unit. Moreover, with over-large units there is always the risk that the complete layout might become a fixture, because while the framework can be carried in in parts, unless it can be broken down into small units it may well refuse to leave unless you are prepared to destroy years of hard work.

For people with no skill in carpentry, an excellent substitute for the braced frame is to be found in a standard flush door. These are available in a series of widths and heights up to 6ft. 6in., and are perfectly rigid. They can be covered by a softboard surface, which can be glued or pinned down to the door. Naturally the cost of such a baseboard will be higher, though "seconds," that is to say doors with a defective finish, can be purchased remarkably cheaply and are just as effective for our purpose.



JUNIOR MODELLER

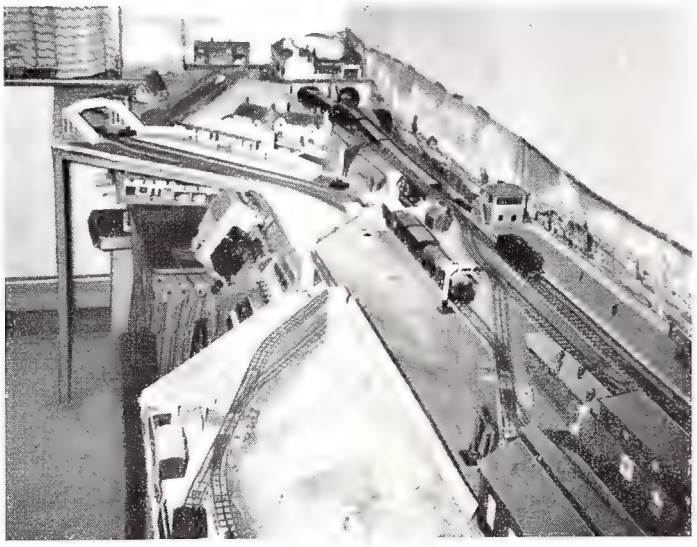
THE WAVERLEY RAILWAY

Heading picture shows 2-6-4T and suburban set arriving at Lichfield. Village by Bilteezi with low-relief adaptations. Lower picture gives a general view of the layout from the terminus.

by J. and C. Knappet

The Story of a Proprietary Layout. Part I.

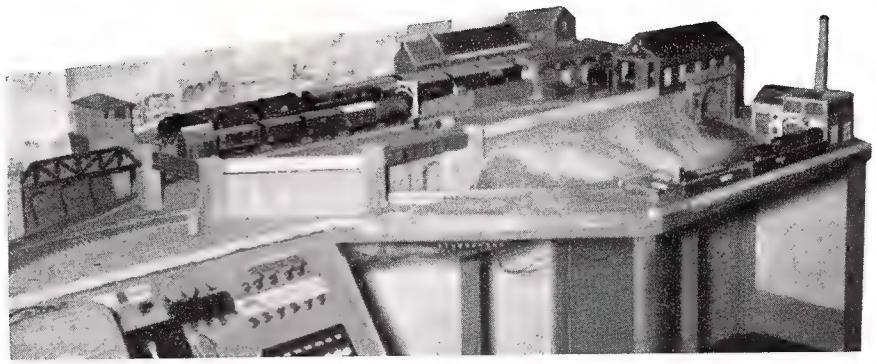
THE story of the Waverley Railway (named after the block of flats in which its owners live, and not because of any north-of-the-border associations!) began in 1951, when the small oval of track from my son's Hornby-Dublo goods set was first assembled on the dining-room table and—proud moment!—the 0-6-2 and its attendant cavalcade were set in motion. The railway (to which brief reference was made in the RAILWAY MODELLER of November 1953) has since passed through an intervening and somewhat unwieldy stage of 6ft. by 4ft. baseboard, which, in the fatally eager impetuosity usual in one's early approaches to the hobby, was made of one sheet of imperfectly braced and noisy hardboard, designed to rest (for want of any other supports) on such articles of furniture as happened to be of a convenient height—with special attention for the two-inch sag in the middle! This, in a small flat, proved a formidable article to live with, as although, in theory, the layout could be stored on edge when not in use no suitable wall-space could be found for this purpose, and the need for its rebuilding in a more suitable form was soon apparent. Bearing in mind the lessons learnt from earlier mistakes, plans for the new version were most carefully prepared and considered from every aspect before any constructional work at all was commenced—and the absolute necessity of this thorough preliminary scale planning on paper, particularly where available space is so strictly limited, cannot be over-emphasized. In fact, planning of this type has a fascination all its own, and I am not at all sure that a very adequate if theoretical substitute for a three-dimensional layout could not be provided by a drawing-board, a ruler and compasses, and a limitless supply of ceiling lining-paper. [It most certainly can.—C.J.F.].



The Waverley Railway in its present form occupies one wall of my son's 12ft. by 9ft. bedroom, and, it is felt, now takes up the minimum possible space (and that in the most generally convenient position) consistent with good running facilities. The layout now has a total track length of

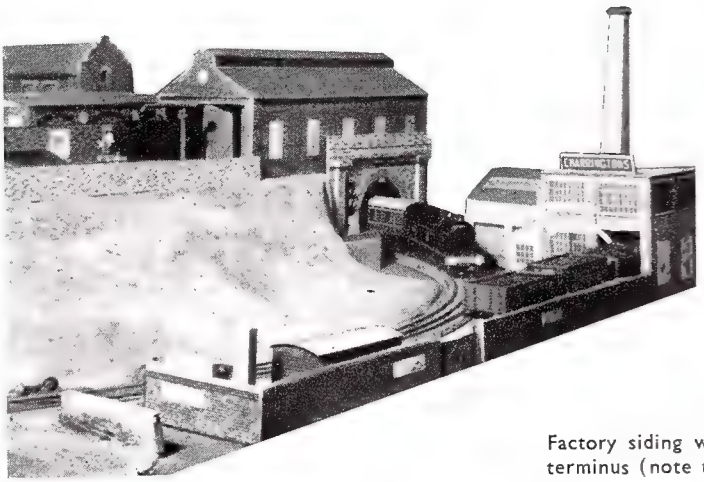
some 38 feet, plus sidings, and gives scope for out-and-home working from a single high-level terminus, with the choice of an intervening continuous run in either direction.

Throughout the various stages of development, use has continued to be made of the Hornby-Dublo sectional track, and it is hoped that this article may be of interest to those who prefer the simplicity of this system and the trouble-free running (together with the ability to squeeze a quart into a pint pot) which results from its use. It may perhaps be mentioned at this stage that the somewhat unreal appearance of the track is lessened by long familiarity and the use of suitable lineside and scenic effects—a state of affairs which will not, however, prevent us from realizing our ultimate intention to change to scale two-rail in the near future. A word of warning may not, perhaps, be out of place here; if your introduction to the model railway hobby has been by means of one of the proprietary train sets, as is so often the case, and you are at all interested in the development of the hobby from the table-top stage, do make the change to scale two-rail as early as you possibly can. Ultimately, nothing else will satisfy you, and, despite the generous help given by various firms, a large-scale conversion from a fully developed proprietary system (particularly from three-rail) can be costly to the point of being an unwelcome deterrent.



General view of Ashbourne (high-level terminus) and control panel, which comprises two cabs powered by a Hornby A3 unit.

(To be continued)

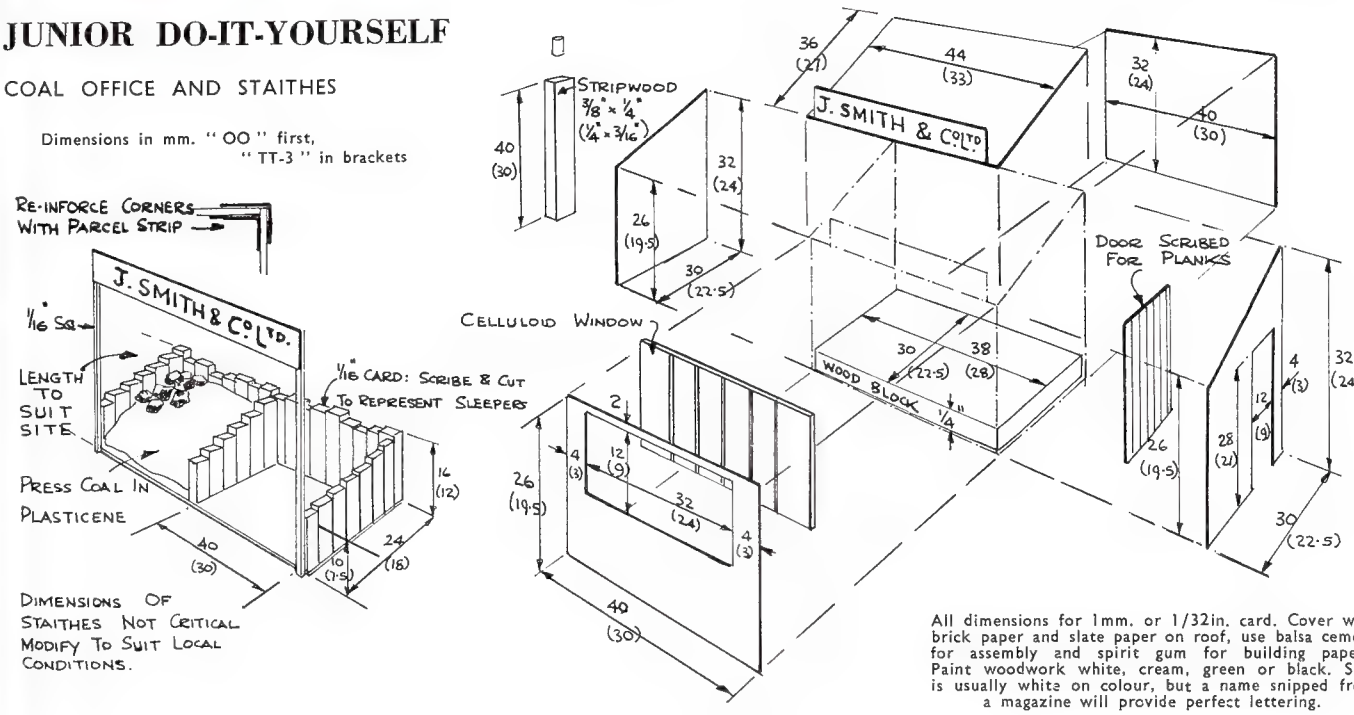


Factory siding with 0-6-2T approaching from the tunnelled section below terminus (note two-aspect colour-light signal built into the tunnel mouth).

JUNIOR DO-IT-YOURSELF

COAL OFFICE AND STAITHES

Dimensions in mm. " OO " first,
" TT-3 " in brackets



All dimensions for 1mm. or 1/32in. card. Cover with brick paper and slate paper on roof, use balsa cement for assembly and spirit gum for building papers. Paint woodwork white, cream, green or black. Sign is usually white on colour, but a name snipped from a magazine will provide perfect lettering.

Personality Parade No. 64

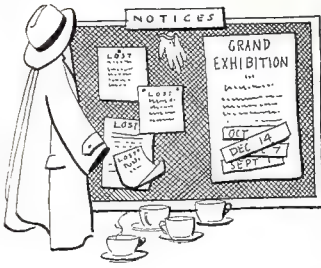
K. Vincent

Ken Vincent started off with Hornby gauge " O " before Dublo came out. There is a dim recollection of an original " OO " gauge tinplate set as a Christmas present when he was two, but the story goes that it was reserved for playing with by its donors, father and uncle, and the owner was shut out of the room.

He was so disgusted when he found out that Caerphilly Castle was not really a 4-4-2, and that Pullman coaches did not run on the G.W.R. anyway, that he rather lost interest for a while. Interest was re-awakened at a later date by contact with Jim Fraser, but being in " digs " prevented any real work being done until he got married. The loan of a number of bound volumes of the *Engineer* (*c.* 1895-1900) gave him an interest in period modelling and his affections changed over from the G.W.R. to the Midland. Tackling wagons as the easiest thing to start off with, he came across the difficulty of getting really authentic information about the old wagons, and has spent most of the intervening time building up his knowledge. He is also interested in industrial sidings and premises as sources of wagon traffic. Consequently, his present " OO " layout is a colliery and its sidings (*c.* 1890), total size 2ft. x 1ft. 4in., with a very diminutive Manning Wardle under construction as motive power. Work on this is rather at a standstill owing to the production of more interesting 7mm. scale wagons for Derby Museum. He also has a couple of 3½in. gauge wagons under way.

Until the Manning Wardle is finished, motive power at the colliery consists of five men and a horse !

CLUB NOTICE BOARD



NOTES AND NEWS

Merseyside Model Railway Society

The clubrooms at 88 Argyle Street, Birkenhead, are open from 7.30 every Friday night to members, and prospective members are also invited. The 16.5mm. and " E.M." layouts are being reconditioned after the very successful exhibition held in September last. Talks are arranged each month at the Grenville Cafe, Tithebarn Street, and anyone interested in the model railway hobby is cordially invited to attend. The society has a very active membership and each month members look forward to receiving the " Merseyside Express," the outspoken magazine with news and views, articles of model railway interest, cartoons and some months a page of pictures. It is not surprising to find that the Chester Model Railway Club, which does not have a magazine of its own, has asked that the " Merseyside Express " be sent to its members with its own club and secretary's notes included.

If you live in Liverpool or the Wirral, why not come along to either of our addresses and see for yourself? All correspondence should be addressed to the secretary, Mr. A. L. Eagles, 38 Silverdale Road, Bebington, Wirral.

The Mid-Cheshire Model Railway Society

A society has now been formed in this district, with headquarters at the Railway Hotel, Hartford, and meetings are held every Wednesday night. The Society already has thirty members, and would welcome further inquiries, which should be made to the hon. secretary, Mr. J. Lewis, " Caldicot," Lime Avenue, Leftwich, near Northwich, Cheshire.

Northolt Model Railway Club

Improvements are still taking place on this club's large stud-contact layout. Train describers and a telephone system are going to be installed between the two main control positions. The small branch terminus is being completely rebuilt, including a new baseboard. The " O " gauge section has finished erecting the baseboards, but track laying has not progressed very rapidly owing to there being only two members in the " O " gauge section. The two-rail layout is still expanding.

A small piece of test track for " EM " gauge, stud contact and two-rail will be built in the near future.

A member of the club, Mr. K. Brown, is shortly to show some of his coloured slides of railway interest.

It has been agreed with the Southall Railway Club that an exchange of visits would be of benefit to members of both clubs. The Southall Railway Club will visit Northolt for certain track nights and in return Northolt will go on any of Southall's organized railway tours, etc.

All inquiries should be made to the hon. secretary, Mr. J. F. Matthews, 63 Hunters Grove, Kenton, Harrow, Middlesex.

Southend Model Railway and Engineering Circle

During the year it is proposed that a small " OO " exhibition layout be constructed and shown to best advantage as the occasion arises, to let it be known that there is a model railway club in the district of Southend.

For the benefit of local modellers, members of the club offer their advice and knowledge gained over years of experience to any enthusiast in doubt or difficulty, or to any newcomer in need of such advice. The club's premises are available at any time, but for intending new members general meetings are held every Tuesday evening at 7.30, or letters may be sent to the hon. secretary, Mr. G. Hardyment, 100 St. George's Park Avenue, Westcliff-on-Sea, Essex.

Western Model Railway Society

The society celebrates its twenty-first birthday this year. Meetings are held on Mondays at the permanent headquarters in Chiswick, where a two-rail " OO " gauge layout is under construction. Membership is limited, but there are at present two vacancies. Further details may be obtained from the secretary, Mr. D. F. B. Kevan, 35 Woodhall Gate, Pinner, Middx.

South London Model Railroaders

The above society wishes to announce that it will be supporting the West Wickham Model Railway Club's exhibition at Beckenham, Kent, on May 27. The society will have a static display stand on which will be exhibited various types of U.S.A. locomotives and rolling stock, and a small working layout will be in operation during the show.

All inquiries concerning the society should be made to the hon. secretary, Mr. P. J. Watkins, 17 Bennetts Way, Shirley, Croydon, Surrey.

APRIL MEETINGS

Birmingham Model Railway Club
3—16.5mm. layout construction.

Bournemouth Model Railway Society
5—Annual general meeting.

Bristol 7.4.2 Club
5—" Model buildings." Mr. John Harrison.

Edinburgh and Lothians Miniature Railway Club
1—Annual general meeting.

Historical Model Railway Society
1—" Idle thoughts of a railway enthusiast." Mr. R. C. J. Day.

Hoddesdon & District Model Railway Society
3—Running night.
10—Annual general meeting.
17—Layout construction.
24—Open night—" Any Questions."

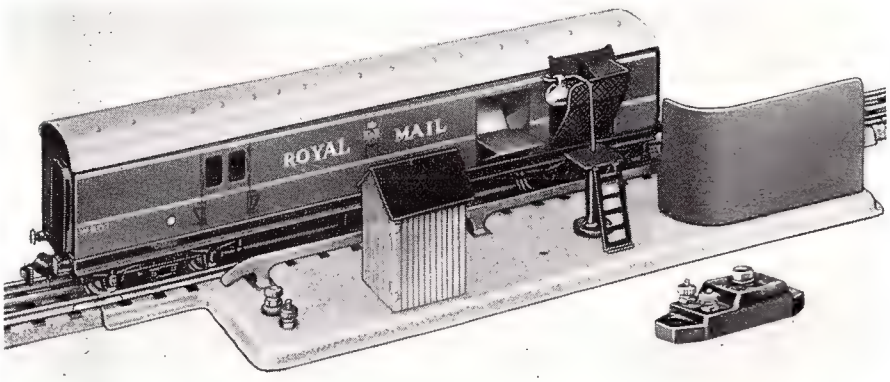
Hull Miniature Railway Society
4—Auction sale.
11—Operation night. Members' own rolling stock.
18—Track night.
25—Annual general meeting.

Merseyside Model Railway Society
12—Practical trackwork. Mr. T. Walsh.

Wimbledon Model Railway Club
10—Railway photography. Mr. R. C. J. Day.

TRADE WINDOW

A REVIEW OF NEW ITEMS SUBMITTED FOR OUR INSPECTION BY MEMBERS OF THE TRADE



"OO" GAUGE MAIL COACH SET

MECCANO LTD.

Liverpool

The latest addition to the Hornby-Dublo range is a fascinating gimmick, a working mail coach. Although intended primarily for the popular proprietary system, it is apparent to us that this model has possibilities in the field of pure scale models.

The net and throw-out mechanism is operated electrically, current being picked up from an outer third rail and returned via the coach wheels. As can be seen from our illustration, the mailbag is thrown out of the coach on the outside just before the fresh bag is picked up. The action of the solenoid is brisk, and pick-up takes place effectively at all speeds. The ejection too is quite positive, but if the train is travelling too slowly or at too high a speed it can occasionally miss the "net." Because the operation is electrical, picking up and setting down are wholly in the control of the operator.

The coach is based on the Western Region design, though it is, of course, shortened to conform with the manufacturer's standards. It is of stout tinplate construction, and is fitted with the correct wide offset corridor connection fitted to all T.P.O. vehicles. It is finished in plain B.R. red livery.

The adaptation of this coach to scale two-rail standards offers a slight problem, due to the fact that the return current is through the wheels. It would seem that the best solution would be to use metal wheels, earthed on one side only, to provide a return through the common rail. It would also be possible to reposition the pick-up shoe to suit local conditions, or even to offset a shoe on a second coach in order to attain complete control of either coach.

We can thoroughly recommend this vehicle.

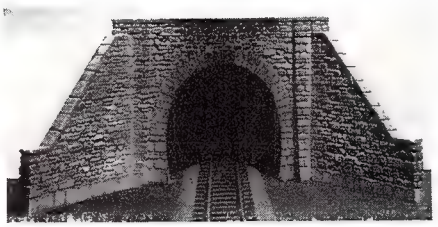
VIKING "HO" GAUGE CARS

BRADSHAW MODEL PRODUCTS

40 Waterloo Road, Hove 2

1/6 each

The cars illustrated above were submitted for review by their British distributors, Bradshaw Model Products Ltd. They are attractive one-piece plastic mouldings, exactly scaled from continental prototype vehicles, and are provided with revolving wheels. They give an attractive touch of authenticity to the model roadway or station approach at a most reasonable price.



"OO" GAUGE TUNNEL MOUTHS AND RETAINING WALLS

EDWARD EXLEY LTD.

The Ridge, Baslow

Prices various

The provision of really authentic stone walls, retaining walls and tunnel mouths on a model railway is always something of a problem. Even in the smaller scales the relief of stonework should be relatively large, so some form of moulded product is advisable, if not essential.

The recently introduced range of plaster mouldings marketed by Edward Exley Ltd. certainly meets this need in no uncertain way. Moreover, the colouring is extremely realistic, producing a truly authentic touch of atmosphere.

We have only space here to illustrate one of the tunnel mouths, but the range, which includes several varieties of retaining wall and low dry stone walling, is fully illustrated in the latest Exley catalogue, which has been completely revised, and now describes even more items for the "O" and "OO" gauge modeller.

TRI-ANG CONVERSIONS

MERCURY ENGINEERING

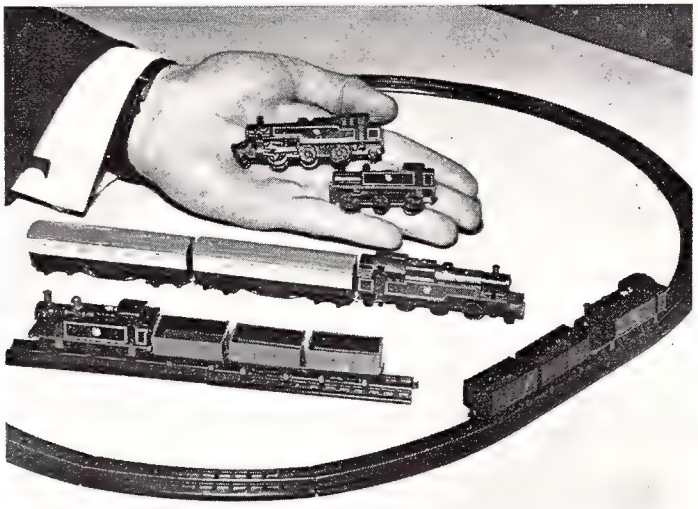
236 High Street, Potters Bar, Middx.

We have received for inspection an example of the Tri-ang modifications advertised elsewhere in this issue by Mercury Engineering in the form of a standard 0-6-0T converted to Hornby-Dublo standards. The work has been beautifully carried out, the wheels being accurately turned to the appropriate standards and a simple, neat and effective centre-third pick-up fitted. Moreover, the body has had additional adhesion weight added, a useful provision, particularly as the spring of the pick-ups must inevitably reduce the adhesion slightly, though, due to the care taken in the design, this has been reduced to the absolute minimum. We have tested the sample submitted over standard Hornby-Dublo track, and report that operation was excellent. Peco-Simplex couplings are firmly fitted fore and aft to couple with Hornby and other rolling stock, and the locomotive is in every respect suited for operation on a layout constructed throughout to Hornby standards, or, of course, on a three-rail universal system.

TRADE ANNOUNCEMENT

Cherry's (Surrey) Ltd. announce that Mr. P. E. Thomas, the gauge "1" parts specialist, has joined their staff and will operate a gauge "1" section for the benefit of enthusiasts working in 10mm. scale. All inquiries should be made to Gauge "1" Section, Cherrys (Surrey) Ltd., 62 Sheen Road, Richmond, Surrey.

SEEN AT THE FAIR



" OOO " ! Unfortunately, these die-cast miniatures possess no motive power, but who would expect it at prices ranging from 1/9 to 2/3 ? The " Lone Star " railway models offer possibilities for those interested in this smallest of scales.

THERE was more of interest to the railway modeller in this year's Brighton Toy Fair than ever before, and the day we spent there was hardly long enough to see it all. This fair is principally a trade show at which the leading toy manufacturers display their wares to buyers, and thus we are able to give you a brief glimpse of what is in store for us in this direction in the coming year.

We had received a nicely engraved invitation card to attend the passing out parade of the new Trix Cadet, with " Colonel Chinstrap " taking the salute. This was perhaps the high-spot of the day, for the Trix system has received a basic overhaul. First and foremost, A.C. propulsion has gone and all locomotives henceforth will be fitted with a low-voltage D.C. motor. Of equal importance is the new track. This is a fibre-based track of similar length and radii to the existing plastic track, although naturally much lower in height. The centre third rail is a special thin section black metal pressing, and as such is almost invisible against the black fibre sleepers. A double-track outer circle is also available, and the six-foot way is commendably close. Adaptor rails are provided to join to the old pattern Trix track ; indeed, all new accessories are designed to work in with the existing equipment. While the track is the most noticeable new item, the change to D.C. traction is more important. The old A.C. sequence reverser has its faults, not the least being the problem of guessing which way the train was going when it started. There is, of course, none of this trouble with D.C. Indeed, it is very pleasing to see two trains operating on the same section of track now under complete positive independent control. The Cadet train set is the old Junior train set with the hand-driven generator replaced by an ingenious controller which clips on to two bell-batteries of a special power unit. The batteries supply sufficient current for a long period of operation, although on a long-term plan the special power unit is to be preferred. Passenger and goods sets are available as well as a combined set which includes a track formation including two points. Prices have been considerably reduced compared with those ruling for corresponding models under the previous arrangements. We understand that new locomotives are contemplated for future production.

On the Meccano stand the main attraction for us was the new Hornby-Dublo " Castle " class locomotive, which was shown in pre-production form and will be available later this year, when we shall be publishing full details. This, together with the Western Region coaches in the new G.W. style livery and a G.W. type restaurant car, will, we feel sure, please many of our readers. It is nice to see that the " Castle " has been chosen rather than the more obvious " King," for undoubtedly the " Castle " is more suitable for general-purpose work than the larger locomotive, which is restricted to the principal main lines. Moreover, as the " Castle's " wheelbase is identical with the " Hall," " Grange," " Star " and " Saint " classes, many modifications seem possible for the enthusiast. The motor is carried in the 4,000-gallon flared top tender.

On the Die Casting Machine Tools stand, the " Lone Star " range of " OOO " locomotives and vehicles was shown. These models, illustrated above, are not powered but may provide those interested in " OOO " with suitable bodies.

B. J. Ward were showing tunnels and overbridges for " TT " gauge, also several new lines in their " OO " range, a parcels office at 5/-, a garage at 2/6, and a small overbridge intended for placing between existing abutments at 2/-. Some " O " gauge petrol pumps and other garage fittings were shown, together with a new power unit giving 12 volts D.C. at 1½ amps and a 16-volt A.C. output.

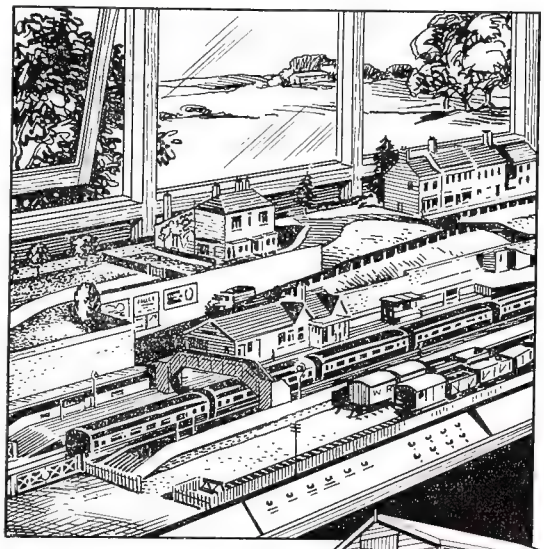
There are several new cars in the Matchbox series. These, we are pleased to note, appear to be as near 4mm. scale as makes no difference. While the manufacturers do not specify any particular scale, they assured us that they endeavour within the limitations of their standard packaging to keep as closely to " OO " scale as they can, and that they intend to modify certain of the rather smaller vehicles to suit.

We also saw several new Charbens vintage miniatures. Many readers will already know these excellent replicas of old-time vehicles, which again are very close to 4mm. scale. While they provide the many period modellers with authentic roadside vehicles, we know that many modellers whose layouts are set in more recent days have taken the opportunity of providing one of their imaginary tenants with a fine collection of vintage vehicles. The range is now large enough for the modeller to stage a really authentic rally of the Vintage Car Club.

We shall, of course, be reviewing many of these items in due course in our columns.

Tri-ang had their own display in London, and here, of course, the main attraction was " TT " gauge. As we reviewed this at length last month, we shall confine ourselves to reporting that the " OO " range is still further expanded. The new remote-controlled level crossing, which has a most agreeably slow action, caught our eye at once, as did the Southern electric set. The transcontinental range is embellished with a neat diesel road switcher, a design that would not nowadays be wholly out of place on a British model, and a special operating dumper ramp has been introduced for the hopper wagon (we shall be reviewing this interesting item next month in Trade Window). Indeed, it is wholly evident that even though they have introduced the new scale Tri-ang are not letting their popular, established " OO " and " HO " lines slide, but are pressing on with still further improvements and extensions.

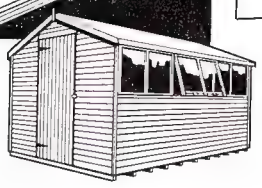
NO ROOM FOR MODELLING ?



H. & H. BLACKNELL LTD. are now producing a series of 14 craftsman-built high quality portable buildings which are ideally suitable as WORKSHOPS and MODEL RAILWAY ROOMS, etc., as they have specially constructed inner wall sections which provide perfect supports for model railway baseboards and workbenches, etc. They are also constructed in such a way that electrical power and heating arrangements can be readily installed.

H. & H. BLACKNELL LTD. also produce a complete range of **Do-it-Yourself** buildings, designed to save £££ over the cost of ordinary sectional buildings. Send for our FREE catalogue of this special range to Dept. 79/1.

★ *EASY H.P. TERMS*
★ *FROM AS LITTLE AS 3/- PER WEEK*
★ *FREE DELIVERY*
★ *SATISFACTION GUARANTEED*



A first-class example of these wonderful buildings is the MIDWAY shed, which is available in eight convenient sizes. For instance, the type having a floor area of over 60 square feet is available for only 126/- deposit and less than 7/- per week—or £31/12/6 cash.

BLACKNELL

PORTABLE BUILDINGS OF QUALITY

SEND TODAY FOR OUR **FREE** 50-PAGE CATALOGUE IN COLOUR GIVING FULL DETAILS **DEPT. 79/2 H. & H. BLACKNELL LTD** *Farnborough, Hants. Tel. 2071*

NEW! NEW! NEW!

A vintage year for modellers and a " shot in the arm " for the hobby

Exciting new Trix

Terrific Tri-ang " TT " ; " OO " Southern electric, American diesel, coaches, wagons and operating accessories by Tri-ang ; Bilteezi sheets and for " TT " ; Peco track packs, points, wagons, etc. ; new Welkut turntable ; and no doubt others yet to come.

KEEP IN THE NEWS

AT

KING CHARLES SPORTS CENTRE

MRA DEALER

RAILWAY HOUSE, 18 KING CHARLES STREET, LEEDS 1

Telephone: LEEDS 26611

STOCKISTS OF NEW AND USED TRIX, TRI-ANG, RIVAROSSI, LIONEL ; ALSO WRENN, WELKUT, PECO HAMBLINGS, H & M, CCW, NUCRO, POCHER, FALLER, ANORMA, ETC.

PLEASE TELL YOUR FRIENDS ABOUT THE **RAILWAY MODELLER**

The RAILWAY MODELLER

SMALL ADVERTISEMENTS

RATES—Private 2d. per word. Trade 4d. per word. Minimum 12 words.
Copy must be received by 1st of month preceding insertion. Box Nos. 1/- extra.

TRADE

YEOVIL. Railway modellers invited to call. Tri-ang service agents. Peco, Trix, Rivarossi, X-acto knives. Comprehensive stocks. Mail orders taken. "Hinks for Radio," 75 Middle Street, Yeovil.

WALTHAMSTOW. Comprehensive stocks Anorma, C.C.W., Erg, Gem, Jamieson, Modelcraft, Peco, Percival Marshall, Ratio, Romford, S & B, Trix, Wrenn, etc. Friendliness, service, satisfaction guaranteed. Call, write, phone, Supacoils, 101 Markhouse Road, Walthamstow, E.17. KEY 6896.

STAFFORD has a practical model shop where model railwaymen are always welcome. J. W. Bagnall, South Walls, Stafford. Telephone 420. Established 1936. M.E.T.A. service agent.

TORBAY Model Railway Supplies. South-west England's biggest stockist, scale and proprietary. Mail orders a speciality. Inquiries welcomed (s.a.e. please). 59 Victoria Road, Ellacombe, Torquay, Devon.

"MODEL EXCHANGE," Market Hall, Rotherham, for Tri-ang, Dublo, Rivarossi, Lionel, Marklin, Gem, Welkut, Bilteezi, etc. We offer half list for your train set or layout. Dinkies, army vehicles, etc. Cash or exchange.

AMERICAN MAGAZINES. Yearly subscriptions: "Model Railroader" 46/6, "Model Trains" 28/6, "Railroad Model Craftsman" 39/-. Specimens 4/- each. Full list free. Hobson, 79 Southbrook Road, Exeter.

"DAVEX" BALLAST, the perfect material for tracks. Also painted, makes realistic ploughed fields, etc. Sample bag covers approximately 15ft. track. Send 5/- P.O., Smedley, 6D Branksome Wood Road, Bournemouth.

3FT. GAUGE 7mm. scale blueprints. N.C.C. 2-4-2T No. 111, 4-4-2T No. 114, 2/6 each. Heaven, 1 Ormond Villas, Ridgeley Road, Chiddingford, Surrey.

"RAILWAY MODELLER" back numbers, 9d. each plus postage. November, December 1951; January, April—July 1952; March, May, July, November 1953; May, August—November 1954; March, May—November 1955; February—December 1956. Peco Technical Advice Bureau, Pecoway, Station Road, Seaton, Devon.

"SCENIC MODELLING" by P. D. Hancock, 1/9. The secrets of the art by an expert. Peco Technical Advice Bureau, Pecoway, Station Road, Seaton, Devon.

THE original "Railway Modeller" Layout Plans Nos. 1, 2, 3 and 4, 1/3 each. Each book contains a graduated range of schemes to suit all conditions. Thousands of satisfied clients. Peco Technical Advice Bureau, Pecoway, Station Road, Seaton, Devon.

SCOTLAND'S PREMIER MODEL SHOP offers complete range of all leading manufacturers' products in all gauges; models to order; repair and conversion service, including Graham Farish; exchanges. Glassford's, 89 Cambridge Street, Glasgow, C.3.

FOR SALE

LARGE 2-rail "OO" layout, all n/s rail; station with bay, branch line, up and down main lines, 4 large sidings; all on 2ft.-wide baseboards. Will unscrew into sections. £20. Inspection arranged. White, 25 Albert Road, Tonbridge.

NEW 2-rail scale 3F tanks, Tri-ang bodies, Romford wheels, sprung buffers, brass s/valves and whistle, vac pipes, 40/1 nylon gears. 3-link couplings 97/6, Peco couplings 99/6. Handbuilt American models, e.g. B. & O. water tower, 32/-. American 10-wheeler (4-6-0) to Tri-ang standards 90/-. Other new models. S.a.e. for lists or inquiries. Advertiser, 22 Austen Avenue, Forest Fields, Nottingham.

SMALL GAUGE "O" layout, 110ft. track, sectionalized, wired up for electric running. £40. S.a.e. 21 Langley Park Road, Sutton, Surrey.

TRI-ANG railway equipment. Excellent condition. Mostly in boxes. Individual items sold. Send for list. Fairman, 224 East Barnet Road, New Barnet, Herts.

EXLEY buffet car, German 2-10-0 locomotive (2-rail), 0-6-0 diesel kit and wheels. Cheap for quick sale. Stewart, 34 St. Nicholas Street, St. Andrews, Fife.

SALE, Hornby-Dublo, three locomotives, 11 wagons, 6 coaches; Kirdon controller, transformer; Wrenn track; accessories. Offers. Also Meccano No. 8, over 400 spares, 2 clockwork motors. S.a.e. lists. Stringer, 124 Grangemouth Road, Radford, Coventry.

FOR SALE, one copy each "Model Railroader" December 1947 to November 1949. Excellent condition. What offers? Flook, 49 Cavan Drive, St. Albans, Herts.

FOR SALE. Gauge "OO" Marklin track, overhead masts, locomotives, coaches, etc., as new. Exley standard coaches, oddments and discontinued lines at reduced prices. All goods new. S.a.e. list. Below.

FOR SALE. Gauge "O" locomotives by Beeson, Exley, Walkers & Holtzapffel, Bassett-Lowke and Hornby. Electric and clockwork. Exley coaches, fittings, oddments, etc. All as new. S.a.e. list. Below.

FOR SALE, railway books, timetables (working and public), guide books, photographs, postcards, oddments, tramway pictures and miscellanea. S.a.e. list. The Ridge, Baslow, Derbyshire.

FOR SALE, gauge "O" clockwork Bassett-Lowke 4-4-0 B.R. compound, 39ft. brass track, crossover, 2 points (L.H.), miscellaneous track parts. £12 the lot. Symons, 104 Cotswold Gardens, East Ham, London, E.6.

SITUATIONS VACANT

AN attractive opening exists for a man or woman with aptitude and liking for model train repair work. Knowledge of low-power electrical instruments essential. Apply in first place by letter to Box No. 57/3.

WANTED

DUBLO required, anything considered. Details, price, etc., Denny, 82 Arkwright Street, Nottingham.

"HO" gauge coaches by Reidpath, etc. L.M.S. particularly preferred, but any company considered. Details, price to Box 57/1.

MISCELLANEOUS

REMINDER SERVICE. May I remind you of anniversaries, etc.? Send occasion and date to Mrs. N. Farrow, 45 Sheals Crescent, Maidstone, Kent, enclosing 1/- per item, and you will receive a reminder a few days prior to the event.

SURPLUS MODEL RAILWAY EQUIPMENT

No need to let your surplus equipment lay idle on your shelves or under the baseboard. There are thousands of readers eagerly scanning our small advertisement columns. Put your announcement there. Our rates are extremely reasonable—2d. per word for a private insertion.

Send your announcement, with remittance, to the Advertising Manager
THE RAILWAY MODELLER, PECOWAY, STATION ROAD, SEATON, DEVON

KANGA *MODELS*

FOR "TT" GAUGE GOODS

All the new Tri-ang "TT" Trains as available. Place your orders now.

Run them on PECO Spiked Track and Points.

Track Packs	**4/-**	steel
make one yard of track	**5/6**	nickel silver
Point Packs	**7/6**	steel
19in. radius	**8/6**	nickel silver

3 Colonnade Passage, New Street
BIRMINGHAM

New
Two-rail Locomotives

(H/Dublo conversions suitable Wrenn universal, etc., tracks)
B.R. 0-6-2 tanks **£3/10/-**, B.R. 2-6-4 tanks **£4/10/-**, B.R. Silver King and tender **£4/19/6**, B.R. Duchess of Montrose and tender **£5/5/-**.

HORNBY-DUBLO BARGAINS

In perfect condition—B.R. 2-6-4 tanks **55/-**, 0-6-2 tanks **37/6**; locos and tenders—L.N.E.R. (blue) Sir Nigel Gresley **55/-**, Silver King **57/6**, Duchess of Montrose **63/-**, L.M.S. (maroon) Duchess of Atholl **59/6**; rails **2/6**, half-rails **1/6**, quarters **1/3**, isol. rails **1/6**; N.E. coaches **7/6**; remote uncouplers and switch **10/6**; diamonds **6/6**; battery controllers **22/6**; transformers **25/-**; remote signals—ED. 1 **6/6**, ED. 2 **10/-**, ED. 3 **11/-**; wheels on axle **4d.**

Marklin gauge "O" : s.a.e. list.

COMPLETE LAYOUTS EXCHANGED TO ANOTHER MAKE
(or purchased)

HORNBY-DUBLO TRAINS EXCHANGED FOR TRI-ANG ("OO" or "TT" GAUGE)
(or vice versa)

TRI-ANG AND HORNBY-DUBLO TRACKS, etc., EXCHANGED FOR WRENN, etc., TRACK

HATTONS

136 SMITHDOWN ROAD, LIVERPOOL 15

The latest addition to our range

G.W.R. PANNIER 0-6-0 5700 Class

Superstructure kit in our usual style.
Price **22/6** plus 4/6 P.T.

Running gear and motor available to complete.
Order NOW for very early delivery.

ALSO

1957 20-PAGE ILLUSTRATED CATALOGUE
listing our comprehensive range of both LOCO and COACH KITS, including the above kit. Price **1/-**. Get your copy NOW.

H. JAMIESON & CO.

MIDTAPHOUSE WORKS
LISKEARD, CORNWALL

E.A.M.E.S

Will add to their **"O" and "OO"** range of supplies and services the new **"TT" gauge by Tri-ang, Geo. E. Mellor, and Peco.** Please watch for further announcements of supporting lines which we are developing for "TT" modellers.

A stamped addressed envelope will secure a free copy of our **"O" or "OO"** lists. Please state which is required.

We carry the widest range of model railway stock in the country, including many sundries in metal sections, small screws for wood or metal, etc., which we have specially manufactured for your use.

Pay us a call, or try our mail order service.

E.A.M.E.S

24 TUDOR ROAD, STATION HILL, READING
Tel. 50868

ATTENBOROUGH MODEL RAILWAY

82 ARKWRIGHT STREET, NOTTINGHAM

Our new main line has just been opened! It's gauge "TT." Official stockists for PECO, GEM, TRI-ANG, etc.

Other main lines are running as usual in gauge "OO" and "O"—PECO, TRI-ANG, WRENN, HAMBLING, CCW, BASSETT-LOWKE, L.M.C.

"OO" loco conversions now undertaken. Write and state your requirements before we quote. Official TRI-ANG service dealers.

Limited secondhands bought and sold.

Bi-monthly list is issued 4d., post free, or 1/6 yearly.

GOOD MAILING SERVICE
INQUIRIES ARE WELCOMED

HAMBLINGS

THE "OO" SPECIALISTS

THE FAMOUS

BILTEEZI CONSTRUCTIONAL CARDS

NOW AVAILABLE

IN **TT** SIZE

We have stocks available of the following sheets:

"TT" B.2 Factory.
" B.6 Tunnel faces, make up single or double road. Three colours available.
" E.1 Modern semi-detached house.
" E.2 Modern suburban bungalow.
" F.1. Stone-built cottages.
" F.3 Stone-built chapel.

Price **1/10** per sheet (postage extra).

These "TT" sheets are ideal for the new Tri-ang miniature "TT" model railways.

REMEMBER the "OO" series of 27 sheets are available from stock. Our scenic catalogue, 32 pages, price 1/2½ post paid, lists all the sheets and gives illustrations.

THE ORIGINAL HOME OF "OO" GAUGE

HAMBLINGS TEM 4704 — 10 CECIL COURT CHARING CROSS ROAD W.C.2

NEW!

THE S & B "TT" POINT LEVER

Identical in design to our existing "OO" lever, but smaller in proportion to suit the new scale.

2/5

See it in action on stand 31, MODEL RAILWAY EXHIBITION

NO "OO" GOODS YARD IS COMPLETE WITHOUT

YARD CRANE
An exact working scale model, mounted on base **9/11**

LOADING GAUGE
A scale replica of the S.R. pattern, with lifting gauge iron **3/6**

WAGON LOADS (see Trade Window, February issue)
Girders ... ... **2/–** Oxygen cylinders ... **2/–**
Concrete pipes ... ... **2/–** Acetylene cylinders ... **2/–**
Aircraft scrap **2/6**

THE DERMIC OILER

5/6 Put the right amount in the right spot!

The Original precision oiler for small mechanisms

S & B Productions

3 Orton Buildings, Portland Road, London, S.E.25
LIV 4943

COME TO

Burleigh's

for

"HO" AND "OO"

AND NOW "TT"

TRIX, TRI-ANG, S & B PRODUCTIONS, H & M POWER UNITS, WRENN TRACK, MASTER MODELS, FALLER BUILDINGS, RIVAROSSI, ETC.

BURLEIGH of Edgware Road Ltd.
303 Edgware Road, London, W.2
Tel.: PADdington 8827

EDWARD EXLEY LTD.

THE RIDGE, EATON HILL,
BASLOW, DERBYSHIRE

Telephone : Baslow 3224

GAUGES

"O" **"OO"**

NEW SPRING CATALOG NOW READY

Illustrated **2/3 (inland)** **Enlarged** **2/9 (overseas)**

Post free

GIVES FULL DETAILS OF ALL EXLEY SPECIALITIES, INCLUDING THE NEW AND CHEAPER EXLEY "OO" VEHICLES

Locos · Tunnel portals · Track parts

Accessories of all kinds

"Hamo" tramways
Railway literature Industrial models

TRADE INQUIRIES INVITED

SALE BARGAINS!

COME EARLY FOR THE PICK OF THE SELECTION OF THE FOLLOWING ITEMS :

Hornby-Dublo	Trix	Tri-ang
2-6-4 Locos	Locos	Wagons
Wagons	Track	Points
Controllers	Points	American locos
	Power units	

THIS REPRESENTS A SELECTION OF THE SPLENDID BARGAINS AVAILABLE. THE SINGLE ITEMS ARE TOO NUMEROUS TO LIST. PERSONAL SHOPPERS ONLY.

"TT" GAUGE SUPPLIES
PECO AND GEM TRACK
TRI-ANG LOCOS, WAGONS, TRACK

MODEL & TOOL SUPPLIES

604 KINGSTON ROAD, RAYNES PARK, S.W.20
LIBERTY 3062

. . . the mark that stands for all that's best in OO railway modelling.

The ERG CATALOGUE
Price **1/6** (by post 1/9).

No modeller should be without a copy of

"CARDBOARD ROLLING STOCK AND HOW TO BUILD IT"
Price **3/6** (by post 3/9).

"CARDBOARD PASSENGER STOCK AND HOW TO BUILD IT"
Price **6d.** (by post 8d.).

"A STUDY OF THE MODEL RAILWAY"
Price **3/6** (by post 3/9). By E. RANKINE GRAY

ERG "PRECISION" CARD PARTS (WAGON AND COACH)

stand supreme, each in its own particular sphere, as the finest means of detailed and accurate modelling.

FIRST FOR REALISM — FIRST FOR STRENGTH
FIRST FOR ECONOMY

ERG (Bournemouth) LTD

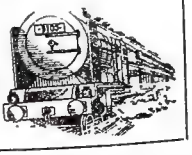
529 ROUMELIA LANE, BOSCOMBE, BOURNEMOUTH

GAMAGES

MAMMOTH MODEL RAILWAY

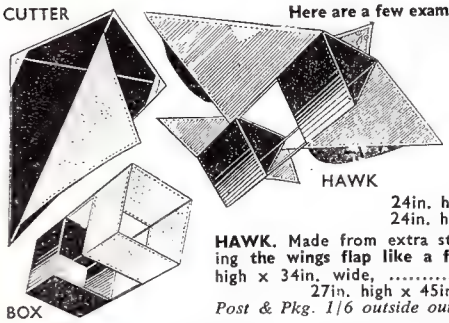
THE LARGEST OF ITS KIND IN THE WORLD
will run throughout the school holidays
Commencing April 8

Too wonderful to describe in words, too large to photograph. Gamages' own model railway exhibition covers an area of approximately 1,000 sq. ft. Dozens of large "O" gauge electric trains running continuously in most realistic surroundings and backgrounds. There is also a mechanical fairground and helicopter landing station.



GAMAGES *for* KITES

THAT FLY HIGH IN THE SKY



Here are a few examples from our wide range :

CUTTER : (left-hand sketch). Brightly coloured. For all ages. 34in. high, 26in. wide **7/6**

BOX : Strong material. Square shape : 18in. high x 9in. square **6/-**
24in. high x 11in. square, **9/11**
24in. high x 14in. square, **15/11**

HAWK. Made from extra strong material. When flying the wings flap like a flying bird. 22in. high x 34in. wide, ... **14/3**
27in. high x 45in. wide, **24/-**.

Post & Pkg. 1/6 outside our own extensive van area.

GAMAGES : HOLBORN : LONDON : E.C.1 HOL. 8484

GODFREY MODELS LTD.

3 CRESCENT ROAD, WORTHING, SUSSEX
Telephone Worthing 8484

"OO" LOCOMOTIVES BUILT TO ORDER

Secondhand L.N.W.R. 0-6-0 DX special, 4mm. scale, 16.5mm. gauge, PM 004 motor, **£12.**

TT
Tri-ang train sets at **79/6**
0-6-0 tank locomotives
Passenger coaches
Goods rolling stock

GEM 12mm. nickel silver flexible track in 18in. lengths at **3/9** each. R.H. and L.H. universal turnouts, **12/6** each. Fishplates (36), **2/5.** Postage extra.

STICK TO SECCOTINE Regd.
-it sticks everything!

Sole Manufacturers: McCaw, Stevenson & Orr Ltd., Belfast

A complete base for your model railway to personal requirements

We make baseboards from 2in. x 1in. HARDWOOD framing, braced at foot intervals and recessed for ½ inch insulation board covering, to any dimension. Finished in flat green.

Submit rough plan with sizes and we will quote you.

Stock sizes 3ft. x 1ft., 5ft. x 3ft., 6ft. x 4ft.

STEVDOWN JOINERY

31 LECKWITH ROAD, CANTON, CARDIFF

Finisters of Coventry—Official Tri-ang stockists

Tri-ang Transcontinental Series		Tri-ang Control Units	
Coach	8/9	Turntable set (remote)	75/–
Observation coach	10/6	Speed control unit	18/4
Vista dome coach	9/11	**Tri-ang catalogue 10d. stamps**	
Caboose	7/6	**Tri-ang British Railways Series**	
Baggage Car	9/3	Water towers, length 3½in.	6/9
4-6-2 Pacific loco	55/6	Engine sheds, length 6½in.	10/6
B.B. diesel loco	59/6	4-6-2 Princess loco	42/–
B.B. dummy end	18/–	Tender for above loco	5/5
Diesel "B" unit	16/3	0-6-0 class 3F tank loco	33/6
Refrigerator car	8/5	0-6-0 saddle tank loco	33/6
Stock car	9/3	2-6-2 class 3 tank loco	54/–
Gondola	6/5		
Box car	7/6		
Hopper car	9/11		

Please add postage.

All locos, rolling stock, track and railway buildings in stock.

FINISTERS OF COVENTRY

173 ANSTY ROAD, COVENTRY

Power Unit—Grange Automatics

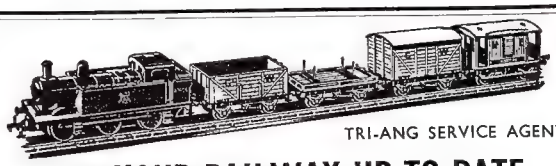
SUPER RESISTANCE, SMOOTH CONTROL, WITH CENTRE "OFF," FORWARD AND REVERSE. FINEST CONTROL YET ON THE MARKET, 15/11 each. Early delivery.
Twin CONTROL UNIT with four outputs. FULL PARTICULARS SHORTLY.
SUPER POWER PACK, 2 AMPS, WITH OVERLOAD AND ENGRAVED PANEL, 49/6 each. Post 2/-. A.C. supply 16 volts. D.C. supply 12 volts. 5/- extra for 16 and 20 volts A.C. supply. 15/- extra with forward and reverse controller. Usual guarantee.
WE SUPPLY ALL MATERIALS FOR YOU TO MAKE YOUR OWN POWER UNITS IN KIT FORM. ALL NEW EQUIPMENT. TRANSFORMERS, RECTIFIERS AND ABOVE CONTROLLER.
S.A.E. FOR NEW ENLARGED SURPLUS LIST. 16-bank switchbox units, **7/6** each, 1/9 post. 12-volt motor, reversible, 1½in. diameter, 2in. long, **12/6** each, post 9d.
two required, 12 volts D.C., **2/-** each, post 4d.
SOLENOID MAGNETS FOR POINTS, two required, 12 volts D.C., 2/- each, post 4d.
our illustrated leaflets. **All carry a 12 months free guarantee.**

GRANGE ELECTRICAL INSTRUMENT MANUFACTURERS
Low Voltage Control Division
11 Horton Grange Road
BRADFORD 7, YORKSHIRE, ENGLAND
TRADE ENQUIRIES INVITED

Fleischmann complete "OO" train set, either goods or passenger, to work from 4.5-volt battery, **79/9.** 4.5-volt transformer **25/9.**
Faller trees **1/2, 1/10** and **3/9, hedges 1/-** and **1/6.**
Formo Track per yard, two-rail **4/-,** three-rail **4/8.**

J. S. SCARLETT & SON

BALLYCASTLE, NORTHERN IRELAND



TRI-ANG SERVICE AGENT

KEEP YOUR RAILWAY UP-TO-DATE

See Tri-ang's new small gauge "TT" railways. Also the new "HO" baggage, stock, refrigerator and observation cars. Southern coaches and working hopper wagon. HORNBY DUBLO mail van set, girder bridge, new locos, turntable, etc.

ALL YOUR TRAINS ARE ON TIME AT THE

PALACE MODEL SHOP

13 CENTRAL HILL, CRYSTAL PALACE, S.E.19
Telephone GIPSY HILL 3654 (opposite Gipsy Hill police station)

7mm. Railway Modellers
IT'S READY AT LAST!

SLATER'S "O" (7mm.) SCALE CARTHORSE

HAND-PAINTED, 3/11½ EACH
NOT PAINTED, 2/6 EACH
Packing and postage 4d.
Send 1/- for our current price list.

G. N. SLATER

DEPT. R.M.6, 335 STRETFORD ROAD, MANCHESTER 15

ROAD STEAMERS
NARROW GAUGE and BRANCH STOCK

Choose your next period piece from our comprehensive hand-built range. For example :

Foden 1914 steam road wagon	**£2/17/–**
Welsh Pony 12-volt 7mm. loco	**£12/12/–**
S.E.C.R. 7mm. rail car	**£15/15/–**
L.B. & S.C.R. balloon coach	**£3/15/–**
G.W.R. 7mm. 12-volt 2-4-0T.	**£12/12/–**

Full details in our 1957 illustrated list, 1/- post free.

DOUGLASS MODELS
HOLYWELL GREEN, HALIFAX, YORKS

"BOBBYS" *M.E.T.A. (Scale Model Railways)*
Tri-ang Railways appointed service dealer

"O" GAUGE: Leeds Model Co. wagons, **8/3, 9/2;** vans, **11/-,** plus 9d. postage. Bassett-Lowke "Prince Charles" loco and tender (electric), **£6/6/-.** Walkers sprung buffers (brass), **1/-** each. Hornby 0-4-0 clockwork loco and tender No. 50 (black), **41/6,** No. 51 (green) **41/6.** Catalogues: B/L **2/-,** Mills **1/-,** CCW **1/-,** Walkers **6d.,** Hornby **4d.,** postage extra.

"OO" GAUGE: Hornby-Dublo T.P.O. mail-van set, **38/6.** Trix controller with whistle, **29/6.** Rivarossi 0-4-0 diesel shunter, **£3/8/5.** Tri-ang remote controlled point, **19/3.** Tri-ang, Trix and Dublo catalogues, **1/-.** All items stocked by Peco, Wrenn, Gem, Welkut, Hamblings, Walkers, etc. Postage extra.

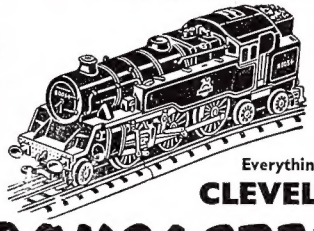
S.A.E. with inquiries.

"TT" GAUGE: Peco flat-bottom N/S rail, **4/10** per 12 18in. lengths, post 6d. Peco tied sleeper strip, per 6ft., "TT" **4/8,** "OOO" **5/3.** Peco point packs, **7/6** and **8/6.** Gem "TT" track and points.

83 PROMENADE, BRIDLINGTON **Tel. 5199**

B. CUTTRISS & SONS

TRI-ANG RAILWAYS "00" and "TT"



HORNBY-DUBLO
TRIX
12 volts D.C.

Service agents
49 & 51 Everything for the modeller **CLEVELAND ST.**

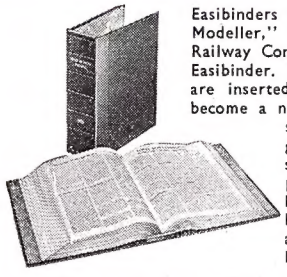
PHONE **DONCASTER** 2524

SCALESIG
MODEL SIGNALS

Modellers who build in 4mm. scale "OO" gauge will no doubt be interested in our "Signal Kits" and Components, and should make a point of inspecting and purchasing them at **HAMBLING'S STAND** at the M.R. Club's Exhibition.

In the meantime, send s.a.e. to us for price list.

N. H. GILLETT, *Scale Model Engineer*
2 ST. PAULS ROAD, RICHMOND, SURREY



Easibinders to contain 24 issues of "Railway Modeller," "Model Railway News," "Model Railway Constructor." Bind your issues in the Easibinder. By a simple operation the journals are inserted with a steel wire, and at once become a neatly bound volume for the bookshelf. The binders are finished in green rexine, gold blocked on the spine, with title and years (which please specify when ordering). PRICE 14/- (post paid). Easibinders can also be supplied for all other model railway journals. Particulars on application.

Separate binders available for small and large issues of "Railway Modeller"

EASIBIND LTD., 84 NEWMAN STREET, LONDON, W.1

for **COMPLETE** *realism*

A range of 23 colours including

Black	Dark Green (B.R.)	Orange (B.R.)
Blue	Gloss Black	Signal Red
Brown	Green (B.R.)	Red Oxide
Cream (B.R.)	Grey (B.R.)	White
Crimson Lake (B.R.)	Mid Green	Yellow

In ½oz. pots **1/4,** 1oz. pots **2/-** each

REEVES

MODEL COLOURS
Obtainable from good model dealers

THE MERCURY MODEL ENGINEERING CO.

Precision engineers to the model trade **Phone: Pot Bar 3000**
236 HIGH STREET, POTTERS BAR, MIDDX.

***We can convert your Tri-ang 0-6-0 locos to run on Hornby-Dublo for* 18/6**

- All wheels lathe turned to H/D standards.
- Super 3-rail pick-up fitted. Light responsive action.
- Peco couplings correctly fitted.
- Loco body weighted for better adhesion.

Post 1/6

PLEASE NOTE. We can accept for conversion only Tri-ang 0-6-0 R52, R152 and R153 locos at the moment.

FOR TRADERS. You can confidently send your Tri-ang 0-6-0 loco stocks to us for conversion to Hornby-Dublo standards. Full trade discounts on above price. Send for particulars.

GUARANTEED WORKMANSHIP AND SATISFACTION

MODERNIZE YOUR LAYOUT WITH THE NEW
B.R. TWIN-CAR DIESEL SETS
DERBY AND METROPOLITAN-CAMMELL UNITS
ALSO
DERBY SINGLE-UNIT DIESEL
WITH FULLY FITTED INTERIORS. IDEAL MODELS FOR POINT-TO-POINT OPERATION ON A LARGE OR SMALL LAYOUT.
SEND **S.A.E.** NOW FOR FULL DETAILS OR
ASK TO SEE THEM AT THE PRINCIPAL MODEL SHOPS.
ESTIMATES GIVEN WITHOUT OBLIGATION FOR ALL TYPES OF SCALE MODELS.
TRANSPORT VEHICLES A SPECIALITY.

A. B. COLBECK
5 PERSEVERANCE STREET, WATERLOO, PUDSEY, LEEDS, YORKS
Phone : Pudsey 3927
TRADE INQUIRIES INVITED

BACK NUMBERS at HALF PRICE!

Many issues are now out of print and others will follow shortly, so complete your sets now while you have the chance. Every issue has plenty to interest in its pages.

1951 NOVEMBER, DECEMBER.

1952 JANUARY, APRIL, MAY, JUNE, JULY.

1953 MARCH, MAY, JULY, NOVEMBER.

1954 MAY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER.

1955 MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER.

1956 FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER.

All at **9d.** each, plus postage.

BOUND VOLUME 6 (1955)

25/- Post paid

(Limited supply only)

A small quantity of Volume 7 (1956) will shortly be available at the same price

PECO TECHNICAL ADVICE BUREAU
PECOWAY • STATION ROAD • SEATON • DEVON

Your RAILWAY MODELLER CUP Coupon — **R.M. Cup April 1957**

Advice Bureau Coupon — **Advice Bureau April 1957**

TYLDESLEY & HOLBROOK

AGENTS ALL LEADING MAKERS (M.E.T.A.)

109 DEANSGATE, MANCHESTER 3

SECONDHAND LOCOS, "O," 12v. D.C.
L.M.S. B/Lowke "Duchess of Montrose," **£15/15/-**
F/lance 0-4-0 tank (L.M.C.), **£3/3/-**
F/lance B/Lowke 0-6-0 tank, **£5/5/-**

NEW LOCOS, 10/12v. D.C.
G.W.R. "Dartington Hall," **£30**
G.W.R. Dean goods, **£22/10/-**
B.R. (L.M.S.) rebuilt Scot, **£30**

Large stocks of new and secondhand Exley metal coaches for "OO" or "O." Secondhand "O" hand-made goods vehicles, coarse-scale, fine-scale, from **6/6** to **50/-**.

RAILWAY ACCESSORIES:	**"OO"**	**"O"**
Cattle pens, opening gates	6/9	—
Ex-R.A.F. 16-switch boxes	7/6	7/6
Super stone walls, straight	3/11	3/11
Super stone walls, curved	4/9	4/9
D/line super tunnel mouths	7/10	—

BOOKS:	
Model Railway Encyclopaedia	30/-
British Railways in Action (Nock)	25/-
The Highland Railway (S.L.S.)	10/-
Leek to Manifold Railway	5/-
South-Western Railway	30/-

Postage extra

"OO," "TT" or "O" Parts, Model and Book Lists 6d.

RAILWAY MODELLERS!

FOR THE VERY BEST IN PICTURES OF INTEREST YOU NEED

RAILWAY WORLD

THE JOURNAL THAT CATERS FOR THE INTELLIGENT RAILWAY ENTHUSIAST

Send 2/- for a sample copy today

245 CRICKLEWOOD BROADWAY
LONDON, N.W.2

"O" BLUEPRINTS "OO"

The new "Skinley" 11th edition catalogue will be issued on April 1, 1957. Price 1/2 post paid. Order your copy now. It will interest all modellers!

JOHN E. SKINLEY, M.J.Inst.E.
132 HIGH STREET, SOUTHEND-ON-SEA, ESSEX

BRASS COPPER DURAL ALUMINIUM BRONZE
ROD, BAR, SHEET, TUBE, STRIP, WIRE
3,000 STANDARD STOCK SIZES
No quantity too small • List on application
H. ROLLET & CO. LTD.
6 Chesham Place, S.W.1 SLOane 3463
ALSO AT LIVERPOOL, BIRMINGHAM, MANCHESTER, LEEDS

"A & G" DYLINE DRAWINGS

B102 L.G.O.G. covered-top solid tyred "NS" type; T101 Met. Electric Tramways "H" type tramcar; R102 Kent & East Sussex Railway railcar No. 6; R103 G.W.R. diesel railcar No. 19. Drawings are available 4mm. scale **1/6** each, 7mm. scale **2/-** each. Please add 3d. postage when ordering. Send S.a.e. for new March/April list.

"A & G" DRAWINGS, 81a FELLOWS ROAD, LONDON, N.W.3

PETER CARTER SCALE MODEL LIGHTING (Patented)

Detailed **STONEWORK RAILWAY VIADUCTS,** three- or four-arch, **2/11** each. Extension stone columns, **1/1** each. **COLOUR LIGHT SIGNALS.** Two-aspect, standard or ground, **10/6** each; junction, left- or right-hand, **16/6** each; three-aspect, standard or ground, **13/11** each; junction, left- or right-hand, **19/6** each. Signal **SWITCH 7/6** each. Junction switches, two- and three-aspect, ready shortly. **LIGHTED COACHES IN STATIONS IN KIT FORM, VERY CHEAPLY, PARTICULARS LATER.** "OO" platform gas lamps, **7/6**; arm type, 5/5 each; 3 or 14 volts. **COACH LIGHTING SETS, 8/9** each, two- or three-rail. **EXLEY (BRADFORD) INTERIOR LIGHTED COACHES, ZEPHYR 47/-** each and **38/-** each. Popular. **EXLEY** kits supplied with coach lighting sets and back red light sets. Details on request, s.a.e. **LINESIDE BUILDINGS, BEAUTIFULLY DETAILED.** 32in. country stations, **36/-**; lighted, **48/-. GOODS STATION, 20/5** each; lighted, **24/8. LIGHTED SIGNAL BOXES, 15/11** each. **MODERN TYPES.** We are able to supply any type of buildings, bungalows, semi-detached houses, stations to order. S.a.e. with enquiries for quotations. **MINIATURE BULBS OF ALL TYPES** in 3 and 14 volts, at **1/11** each, .075 amps. **NEW ENLARGED CATALOGUE READY SHORTLY. 6d.** in stamps for illustrated leaflet on colour signals, bulbs, scale model lamps.

AGENTS THROUGHOUT THE WORLD

PETER CARTER Dept. R.M.
Scale Model Lighting and Illumination Specialist
11 HORTON GRANGE RD., BRADFORD 7, YORKSHIRE, ENGLAND
TRADE ENQUIRIES INVITED

WELKUT *Flexible* TRACK

Pro. pat. No. 27415/55

FOR ONLY 5/2 per yard

you can have a scale nickel silver TRACK for two-rail, **7/-** per yard for three-rail. Also a full range of trackwork available.

AND NOW FURTHER ADDITIONS to our Trackwork

TURNTABLE

36/11
two-rail

37/9
three-rail

Can be used with any "OO" track.

ADAPTOR RAILS
3/-
for Tri-ang
3/6
for Hornby

FOAMED STRIP
6ft. x 1⅝in.
11d. strip

REMEMBER! USE WELKUT NICKEL SILVER TRACK FOR BETTER RUNNING

Go to your model shop and ask for details. If unable to, send to us direct. Temporary price list **3d.** Sample rail and list **1/-.**

WELKUT MODELS CO. CARSHALTON PARK ROAD CARSHALTON, SURREY

BUILD YOUR BACKGROUND BETTER WITH

BALLARD BROS. BUILDINGS

"OO" 4mm. SCALE HIGHLAND CROFTERS' COTTAGES

	Finished	Unfinished
HC.1	9/6	4/6
HC.2	6/–	3/6
HC.3	7/11	4/3
HC.4	11/6	6/–
HC.5	6/–	3/6

Illustrated : HC.4 HC.1 HC.2

"OO" 4mm. scale CHURCH with TOWER, fin. 50/-, unfin. 18/-.
"OO" 4mm. scale CHURCH with SPIRE, fin. 45/-, unfin. 16/-.

"OO" 4mm. SCALE LOW-RELIEF MODELS

Tudor shops 26/-, unfin. 10/-; Tudor house 21/6, unfin. 7/2; Tudor inn 22/6, unfin. 9/-; Group of three cottages 21/6, unfin. 7/2; Grey stone cottage 8/4, unfin. 3/-; Victorian facade of hotel or office building 20/-, unfin. 6/9.

UNFINISHED MODELS ONLY REQUIRE PAINTING AND WINDOWS GLAZING. *(Postage extra on each)*

BALLARD BROS. (DEPT. RM)
133 SCHOOL ROAD, MOSELEY, BIRMINGHAM 13

The Model Railway Club's 32nd

MODEL RAILWAY EXHIBITION

WORKING MODEL RAILWAYS AND TRAMS. RAILWAY MODELS OF ALL KINDS FROM THE WORKSHOP AND THE KITCHEN TABLE

Amateur Modelling at its Best!

ADMISSION 2/6.
CHILDREN UNDER 14 1/3.

There are special terms for parties of 12 or more. Please apply to The Model Railway Club, 60 Howard Road, South Norwood, S.E.25 (s.a.e.).

EASTER WEEK. TUESDAY, APRIL 23—SATURDAY, APRIL 27.
Tuesday 12 noon to 9 p.m. Other days 10.30 a.m. to 9 p.m.

Central Hall Westminster, S.W.1

PLEASE TELL YOUR FRIENDS ABOUT THE **RAILWAY MODELLER**

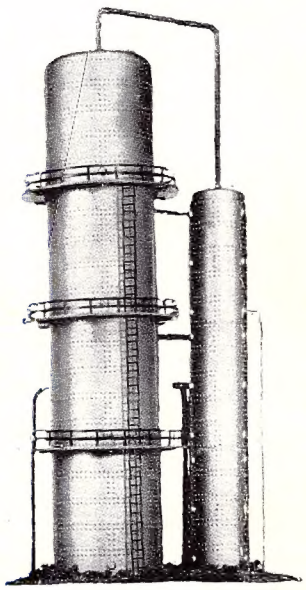
FALLER MODELS

These beautiful "HO" gauge models of houses, trees, etc., add realism to any layout. The following is a selection from the very extensive range available :

Item No.	Item	Price
200	House	8/– each
202	House	11/5 ,,
212	Coca-Cola store	8/– ,,
213	Post office	44/6 ,,
245	House under construction, stage 1	12/4 ,,
246	House under construction, stage 2	12/4 ,,
247	House under construction, stage 3	12/4 ,,
261	Ranch (as illustrated)	26/5 ,,
269	Villa	19/6 ,,
104	Station	23/5 ,,
121	Signal cabin	13/3 ,,
124	Control tower	18/8 ,,
155	Goods shed	18/8 ,,
545	Viaduct	12/4 ,,
547	Pier for above	3/11 ,,
556	Single tunnel mouth	4/6 ,,
557	Double tunnel mouth	5/2 ,,
	Trees and hedges	
351	Small poplar	1/3 ,,
352	Medium poplar	1/6 ,,
353	Large poplar	3/– ,,
355	Small Birch	2/2 ,,
356	Medium birch	2/9 ,,
357	Large birch	3/8 ,,
361	Small fruit tree	1/2 ,,
362	Large fruit tree	1/10 ,,
366	Medium beech	2/9 ,,
367	Large beech	3/11 ,,
381	2in. hedge	1/2 ,,
382	4in. hedge	1/10 ,,
227	Operating water-mill	27/– ,,
233	Operating windmill	40/10 ,,
526	Plastic fencing (24 pieces)	9/11 ,,

VOLLMER REFINERIES

A very extensive industrial area can be added to your layout with this excellent range of refinery equipment, factory buildings, etc. All models are constructed of plastic and contain extremely fine detail, even down to prototype rivet heads. We are sure that this equipment fills a long-felt need of all railway modellers.



	Items	Prices
V-522	Double hydro boiler	26/6
V-502	Single hydro boiler	18/11
V-511	Single horizontal tank	8/–
V-512	Double horizontal tank	11/6
BH	Signal cabin	14/6
StwH	Signal box	18/11
V-553	Warehouse	38/6

VIKING "HO" GAUGE CARS, LORRIES, etc.

The Viking range of plastic accessories is very extensive, consisting of over one hundred different items. They include models of most types of continental cars, lorries, fire engines and other forms of transport. We would particularly like to mention the two sets T-87 and T-88, which consist of sets of people, children and animals, T-87 in the standing position, and T-88 in the walking positon.

Code No.	Item	Price
T-1	Jeep	1/6
T-9	Opel Olympia	1/6
T-14	Mercedes 220	1/6
T-17	VW limousine	1/2
T-2	Jaguar sports	1/6
T-3	VW sports car	1/6
T-87	Set of 8 figures, walking	2/–
T-88	Set of 8 figures, standing	2/–
T-52	Articulated lorry	5/10
T-63	Breakdown lorry	2/11
T-54	Lorry with doors	4/6
T-53	Trailer for above	2/4
T-61	Fire engine	2/11
T-79	Articulated Esso tanker	7/–

THESE ITEMS ARE FULLY DESCRIBED IN THE FOLLOWING CATALOGUES

Faller complete catalogue, **1/3** post free.
Vollmer complete catalogue, **1/3** post free.
Viking illustrated list, 2½d. stamp.

Also available, a complete Rivarossi catalogue and manual with price list, **1/9** post free.

AVAILABLE FROM ALL GOOD TOY MODEL AND HOBBY SHOPS

DISTRIBUTED THROUGHOUT GREAT BRITAIN AND EIRE BY

BRADSHAW MODEL PRODUCTS LTD.

40 WATERLOO STREET, HOVE 2, SUSSEX

Telephone: HOVE 70359

Published by PECO PUBLICATIONS & PUBLICITY LTD., PECOWAY, STATION ROAD, SEATON, DEVON
Printed for the Proprietors by LETCHWORTH PRINTERS LTD., NORTON WAY NORTH, LETCHWORTH, HERTS